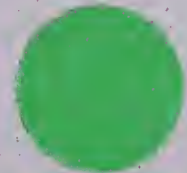


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Annual Report to Congress

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REVIEW

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ACKNOWLEDGEMENTS

Each year since 1986, the Physician Payment Review Commission has submitted an annual report to the Congress, presenting analyses by its staff and outside experts and reflecting the ongoing exchange it has had with physicians and other health professionals, consumers, payers, and others affected by its work. This year, the Commissioners and staff are once again cognizant of how much their work benefited from the contributions of many organizations and individuals. Staff of the Congress, the Health Care Financing Administration, the Agency for Health Care Policy and Research and other agencies of the Department of Health and Human Services, the Congressional Budget Office, the Congressional Research Service, the General Accounting Office, the Office of Technology Assessment, the Prospective Payment Assessment Commission, and the Federal Trade Commission provided invaluable information and advice to the Commission.

The Commission has been fortunate to work with a group of people who have consistently understood and responded to its needs in key areas. Social and Scientific Systems, especially Jeff McCartney and Arlene Turner, continued their excellent record of meeting the challenges posed by the Commission's diverse programming needs. Lynn Lewis went beyond her usual careful and timely editing to working closely with staff on effective ways to convey complex and technical material. Ellen Fahey-Pidano also contributed to the report with editorial help and suggestions.

This past year the Commission began publication of an external research series to make work conducted for it more accessible to the public. The studies published in this series are reflected in a number of chapters in this report. Special thanks go to Jinnet Fowles and David Knutson at Park Nicollet, and Jonathan Weiner at the Johns Hopkins University Health Services Research Center for their study on risk adjustment; Ann Zuvekas at the Center for Health Policy Research at the George Washington University, for her research on models of care for inner-city populations; and Marsha Gold at Mathematica Policy Research, and Robert Hurley at the Medical College of Virginia, for their study of arrangements between managed-care plans and physicians.

As in past years, the Commission convened panels of experts to discuss topics on its agenda. Their efforts have strengthened the Commission's work on a range of topics. The Advisory Panel on Access continued to help the Commission with its analysis plans and annual report on monitoring access for Medicare beneficiaries. In addition, a panel of physicians and experts was convened to discuss issues related to the development and use of practice guidelines. As part of its work on the evolving health care market, Commission staff met with representatives of health care organizations and purchasers in Santa Clara County, California. These people were very generous with their time and insights into the changes occurring in the organization, financing, and delivery of health services. Special thanks go to Cary Badger, Neilson Buchanan, Molly Coye, Francis Crosson, Derrel DePasse, David Druker, Alain Enthoven, William Finlayson, Cary Fox, Bill Graham, Richard Lanham, Anna Mullens, George Perlstein, Richard Pettingill, Patricia Powers, and Debra Stebbins. Thanks also to Hal Luft and Jamie Robinson for their advice to the staff in planning the site visit.

The Commission is grateful to staff from state Medicaid programs, commercial insurance companies, and Blue Cross Blue Shield plans for participating in its survey on the adoption of the Medicare Fee Schedule by other payers. The Commission also conducted surveys on state quality assurance activities, the impact of the evolving market on physician practices, and arrangements between managed-care plans and providers. It appreciates the willingness of staff from state health and insurance departments, practicing physicians, and representatives of managed-care organizations to take the time to participate in these surveys.

Throughout the year, the Commission seeks comments on its work from many organizations concerned about the issues on its agenda. The information it receives through formal testimony, comments on draft reports, and interactions with these groups always enhances its work, and it appreciates the efforts made by these organizations.

A number of people played a key role in Commission activities during the past year. For their efforts, special thanks go to Kelli Back, Rashid Bashshur, Bob Berenson, Marc Berk, Jill Bernstein, Jack Bierig, Carla Bodaghi, Patricia Born, Allen Brett, Sue Carrington, Sandra Christensen, Molly Collins, Guy D'Andrea, Helen Darling, Tim Deyak, Stan Dorn, Joe Escarce, Marilyn Field, Cheryl Fish-Parcham, Beth Fuchs, John Gorman, Jim Grigsby, Bob Grossman, Terry Hammons, Mark Horoshack, Jane Horvath, Lori Housman, Michael Hupfer, John Kelly, Kala Ladenheim, Jim Langenfeld, Bob Lapp, Helen Leeds, Art Lerner, Bill London, Stephen Male, Michele Milden, Carole Mintzer, Bob Moore, Judy Moreland, Ira Moscovice, Meg Murray, Greg Nycz, Michael O'Grady, Janet Olszewski, Douglas Perednia, Jane Perkins, Greg Pope, Elaine Power, Kathy Rama, Bill Roper, Susanne Salem-Schatz, Julie Schoenman, Lou Silvia, Gary Swartz, Patricia Taylor, Sherry Terrell, Mike Treash, Tom Troxell, Sean Tunis, Carl Volpe, Sheldon Weisgrau, Mark Weist, Elliot Wicks, and Lu Zawistowich.

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SUMMARY AND RECOMMENDATIONS

The 1995 *Annual Report to Congress* is a continuation of the Physician Payment Review Commission's past work on Medicare physician payment policy and its more recent focus on related policies affecting the broader health care system. The issues addressed reflect two major developments of the past few years: implementation of Medicare physician payment reforms passed in the Omnibus Budget Reconciliation Act of 1989 (OBRA89), and a rapidly changing market that is evolving from indemnity insurance to managed-care products and from solo practitioners to integrated systems of care. These developments will challenge the Congress as it seeks to improve performance of the Medicare and Medicaid programs and to advance policy goals, such as containing costs, expanding access, and ensuring quality of care, that affect all Americans.

The report speaks to these two different but linked agendas. It begins by focusing on the Medicare and Medicaid programs, considering a series of policy and technical issues as well as broader concerns about the role of these programs within the changing U.S. health system. In response to growing congressional interest in the potential of competitive markets, the report then discusses the changing nature of health services delivery and its implications for plans, providers, purchasers, and consumers, as well as for the Medicare and Medicaid programs.

The first section of the report is primarily intended to help the Congress understand how federal policy changes are affecting physicians and beneficiaries, to investigate how changes in Medicare and Medicaid can be made consistent with innovations in the private sector, and to pinpoint areas where action is needed. Chapters on payment rates of Medicare and other payers, the Medicare risk program, coverage decisions, and telemedicine specifically consider how Medicare can respond to the changing health care marketplace. Several chapters reflect the Commission's ongoing responsibilities to monitor the implementation of Medicare physician payment reform. These assess the effect of the Medicare Fee Schedule on access to care for beneficiaries, consider the impact of the fee schedule on physician practice and payments, and analyze the changes needed to make the Volume Performance Standards (VPS) system more effective in slowing growth in Medicare expenditures to a sustainable level. The final chapter of this section discusses policies to enhance states' flexibility in meeting the health care needs of the poor through their Medicaid programs.

The second half of the report focuses on broader changes in the health care system. Chapters on relationships between plans and providers, provider-driven integration, network development in rural areas, monitoring quality and plan performance, and the changing physician labor market provide the Congress with systematic information about the dynamic forces at work in the marketplace. These background chapters are intended to help the Congress understand the implications of market innovation on costs, quality, and access. The relationship between these delivery system changes and public policy is addressed through chapters on insurance market reform, antitrust policies, medical liability reform, and development and use of practice guidelines.

ACCESS FOR MEDICARE BENEFICIARIES

Two goals of the 1989 Medicare physician payment reform legislation were to ensure access to physician services and limit beneficiary financial liability. To measure achievement of these goals, the Congress called for ongoing monitoring of beneficiary access and financial liability. The Commission analyzes data from a variety of sources to identify any access problems that may be emerging as payment reform is implemented. Available evidence suggests that payment reform has not adversely affected beneficiary access.

Key Points

- ☐ Information from beneficiaries indicates that few have had trouble getting care and most are satisfied with the care they receive.
- ☐ Physician participation in Medicare continues to grow. Fully 93 percent of charges are now paid on assignment, continuing the growth trend of the past several years.
- ☐ Medicare claims data show no systematic drop in service volumes where Medicare payment levels have been reduced since 1991. Declines in volume that were found appear to be due to changes in medical practice and technology, coverage, and procedure coding.
- ☐ Vulnerable populations who experienced restricted access to care before reform was implemented—African American beneficiaries, those in urban poverty areas, and those in urban Health Professional Shortage Areas—continue to have access problems.

Recommendation

Multiple approaches should be considered to maintain and expand service delivery for underserved Medicare beneficiaries. These approaches cover a broad range of policies. Among them are ensuring appropriate numbers and distribution of health professionals to serve these beneficiaries; paying providers, including qualified nonphysician health professionals, who care for these beneficiaries; and making certain that these beneficiaries have access to new health care delivery systems.

PHYSICIAN PAYMENT UNDER THE MEDICARE FEE SCHEDULE

By the time the fee schedule is fully implemented in 1996, its various elements and related payment policies will have changed since their original publication in November 1991. Some changes provide needed refinements in policy. Others, however, move payments away from the reform's original goal of making payments resource based.

Key Points

- ☐ Since 1992, physician payments per service have fallen, but most physicians have had slight gains in total Medicare revenues because of increases in service and volume intensity.
- ☐ Ongoing administration of the fee schedule raises several issues:
 - Policy changes since 1992 have changed relative payments under the fee schedule. Among major policy changes, the continued use of three separate update factors has had the largest impact on relative payments across service groups and physician specialties; fee schedule payment levels for surgical services, for example, have experienced a relative gain of more than 9 percent because of the high updates for surgical services in the past few years. Refinements to relative work values have had a negligible impact on relative payments.
 - The Health Care Financing Administration (HCFA) has begun the first five-year refinement of the relative value scale, but whether the process will effectively address systematic problems in the scale of relative work is not clear.
 - A set of principles should be adopted to guide ongoing refinements and other policy changes to ensure that relationships within and across fee schedule components are appropriate. Because HCFA cannot adjust the conversion factor to maintain budget neutrality, it has changed relative values for reasons other than to improve their accuracy.
 - The Commission is concerned about the trend toward increased use of higher level codes for evaluation and management services by physicians when billing Medicare.
 - HCFA continues to review petitions requesting conversion to statewide payment areas. Since 1992, six states have successfully petitioned for reclassification as statewide areas. The agency is now analyzing the implications of comprehensive redefinition of payment areas.
- ☐ There were two key statutory and regulatory changes in 1994:
 - Legislation was passed requiring implementation of resource-based practice expense relative values by 1998. Because of the large payment changes that may occur with

this policy, the absence of a transition to new values may be disruptive. Development of new practice expense values gives HCFA an opportunity to improve its policy on site-of-service differentials. Malpractice relative values were not included in the law, so they remain charge based.

- Geographic adjustment factors were revised to reflect more recent information and technical improvements in weighting data to create indexes. Implemented in a budget-neutral manner, these changes do not affect overall spending. Most areas (more than 75 percent) will experience payment changes of less than 3 percent.

Recommendations

Several modifications that require legislative changes will improve payment policy under the Medicare Fee Schedule:

- A transition period should be defined for the introduction of resource-based practice expense relative values.
- Malpractice expense relative values should also be resource based.
- The Health Care Financing Administration should be authorized to achieve budget neutrality or implement legislative directives for savings through the conversion factors rather than through across-the-board changes to relative values.

In addition, service-level site-of-service differentials should be developed as part of resource-based practice expense relative values, a policy that the Health Care Financing Administration can implement with existing authority.

ADDRESSING LIMITATIONS OF THE VOLUME PERFORMANCE STANDARD SYSTEM

The Volume Performance Standard system was created by OBRA89 as a mechanism for controlling expenditure growth. It links future conversion factor updates with past changes in volume. Methodological limitations within the VPS system may, however, prevent it from working as intended.

Key Points

- ☐ Within the next 10 years, under current formulas used in the VPS system, the conversion factor will fall below the level established when the Medicare Fee Schedule was first implemented.
- ☐ Use of a single standard and update would remove distortions caused by the use of three separate updates, which moves payments away from the resource-based relative values.
- ☐ Linking performance standards to projected growth of real gross domestic product per capita provides a realistic and affordable goal for the growth of volume and intensity of physician services. This approach reflects changes in medical practice or in the economy as a whole, unlike the current policy of using the historical trend and a 4 percentage point deduction.

Recommendations

A single volume performance standard and update for all categories of service should be adopted. If separate standards and updates by categories of services are retained, they should be based on the recent trend in volume and intensity growth for each category as called for in the Omnibus Budget Reconciliation Act of 1990, and differential updates should be in effect for one year only.

To set performance standards, historical trends in volume and intensity growth and the 4 percentage point deduction used under current policy should be replaced by a formula linked to the projected growth of real gross domestic product per capita. In addition, estimates of this growth should be increased by 1 or 2 percentage points to allow for advancements in medical capabilities.

If a single performance standard and update are adopted and the performance standard is linked to growth in gross domestic product, then the Congress should revise the method for determining the conversion factor update. The method should base the update on a comparison of actual and targeted spending accumulated since a base year. The method should be defined to reduce volatility, either by shortening the delay before the update is set, or by incorporating a “smoothing adjustment.” The performance standard for the first year under the new method should allow for previous fee increases in excess of the Medicare Economic Index. It should be lowered only as necessary to ensure budget neutrality. In addition, symmetric limits should be established to restrict the size of annual reductions and increases from the Medicare Economic Index to 5 percentage points.

PAYMENT RATES FOR MEDICARE AND PRIVATE PAYERS

The gap between Medicare and private payer rates is important to consider when making changes to the Medicare program. If Medicare rates fall too far below private-sector levels, physicians may be less likely to serve Medicare beneficiaries, thus limiting their access to care.

Key Points

- ☐ Inflation in private payer rates has slowed considerably, dropping from 6 percent in 1990 to less than 1 percent in 1993.
- ☐ Private payer rates for visits continue to climb, but rates for tests and procedures have grown slowly or held even. This is due at least partly to private payers increasingly adopting the resource-based relative value scale that underlies the Medicare Fee Schedule.
- ☐ Overall, Medicare payment rates fell or were constant between 1991 and 1993. During this period, payments for visits grew between 5 percent and 7 percent annually while those for tests and procedures dropped, on average, more than 5 percent.
- ☐ Medicare's 1995 payment rates are projected to be 68 percent of private rates, averaged across indemnity and managed-care payers. This gap is smaller than reported by the Commission last year because of higher Medicare fee updates, slower growth in private fee levels, and more accurate data on managed-care payers.

MEDICARE RISK PROGRAM PAYMENT POLICY

Managed-care offerings under the Medicare risk program provide beneficiaries with a choice of health plans and benefits and can potentially limit cost growth. Current payment policies, however, are flawed and limit health maintenance organization participation in Medicare. If these policies were improved, Medicare managed-care options could be expanded, thus promoting efficiency and generating Medicare savings.

Key Points

- ☐ HMO payment rates vary widely because of local variations in the adjusted average per capita cost, or AAPCC, due to differences in local service use patterns. They are also volatile, particularly in counties with small Medicare populations.
- ☐ Favorable selection for risk-contracting HMOs, due to inadequate risk-adjustment methods and unrestricted HMO movement between risk and cost contracts, has contributed to increased Medicare costs, despite service efficiencies gained by Medicare HMOs. Partial capitation should be explored as a method to reduce risk-selection problems.
- ☐ Because of variation in the availability of managed care in different communities, a combination of strategies that includes competitive bidding, improvement of the AAPCC geographic adjustment method, and cost contracts is needed.

Recommendations

Payment rates for Medicare health maintenance organizations (HMO) established through competitive bidding ultimately should replace payment rates based on adjusted average per capita costs (AAPCC) in markets with a sufficient number of HMOs bidding to achieve price competition. HMOs with bids that exceed the established payment rate should be required to charge some or all of the balance of their bid to beneficiaries in the form of premiums. Implementation should begin in a small number of competitive Medicare HMO markets, adding markets as experience is gained and market conditions change. A maximum limit for established payment rates based on fee-for-service per capita costs should not be used.

The adjusted average per capita cost (AAPCC) payment method should be improved to establish more consistent and predictable payments to health maintenance organizations. Methods should be adopted to adjust for effects of service use variations on payment rates, such as an adjustment that blends the AAPCC with an input-price-adjusted national average per capita cost. To obtain payment rates that better reflect true geographic differences in per capita costs, and that have greater year-to-year predictability, alternatives to using the county as the basic unit for geographic adjustment should be considered. Other methods for improving the predictability of county-level AAPCCs also should be considered, including basing them partly on the county AAPCC and partly on the AAPCC for a larger area containing the county.

Partial capitation methods that ameliorate effects of risk selection should be tested in demonstration projects to evaluate the administrative feasibility of each model, and to obtain information for defining threshold levels and risk-share percentages.

In markets where competitive bidding is established, Medicare cost contracts should not be available. Where choice of Medicare contracts is offered, health maintenance organizations should be required to commit to the contract form they choose for more than one year.

Coordinated open enrollment should be established to offer beneficiaries full comparative information on Medicare health maintenance organizations (HMOs). In markets where competitive bidding is used, HMOs should report any premium charged to beneficiaries for the basic package of Medicare-covered services. All HMOs should report the premium that would be charged for a specified core set of supplemental benefits, as well as premiums charged or credited for benefits other than those in the core set.

The adjusted average per capita cost (AAPCC) payment methodology should be revised so that Medicare payments to health care institutions for direct and indirect medical education costs are not reflected in the AAPCCs. Separate mechanisms for paying Medicare HMOs for medical education expenses they may incur in training residents or using teaching facilities should be explored.

IMPROVING MEDICARE COVERAGE DECISIONS

Coverage decisions by health plans to pay for or provide a service are a critical point of control over the introduction and dissemination of new technologies and treatments into medical practice. These decisions ultimately affect the cost and quality of care available to patients. They also influence the incentives for innovation.

Key Points

- ☐ Medicare coverage decisions are often inconsistent across the country. Few decisions are made at the national level, and funds to obtain technology assessment information are insufficient.
- ☐ Medicare, like all health plans, has been struggling with coverage issues, such as the exclusion for experimental treatment and the role of information about cost and comparative efficacy of alternative treatments.
- ☐ Medicare should take the initiative in addressing these difficult coverage issues, setting an example for other payers.

Recommendations

The Health Care Financing Administration should reduce variation in coverage decisions across Medicare carriers. To accomplish this goal, the agency should establish an information system that will enable it to identify inconsistencies in coverage policies across geographic areas. When divergent policies are identified, the agency should take steps to understand the basis for the variations and to achieve more consistent coverage policies.

To improve the scientific basis for Medicare coverage decisions, the Health Care Financing Administration should devote sufficient resources to enable them to be based on available evidence of the safety and effectiveness of medical services.

The Congress should authorize the following additional coverage options for Medicare:

- For devices subject to Food and Drug Administration approval, and for other services that the Health Care Financing Administration has not approved for coverage, Medicare should pay up to the cost of standard care when the device or service is clearly substituting for an established one and is being evaluated in a Food and Drug Administration-approved or other approved study.
- When there is reason to believe that the degree of safety and efficacy of selected new services demonstrated in research studies may not be achieved after coverage is

granted for all settings, Medicare should pay only those providers and institutions that participate in an ongoing evaluation of the service, including reporting of outcomes.

- When two covered services offer equivalent net clinical benefit for a particular clinical indication, but one costs substantially more than the other, Medicare should pay at the rate of the less expensive service when the more expensive one is used.

TELEMEDICINE

Telemedicine is an emerging technology that allows providers who are physically separated from the patient or each other to provide a wide variety of patient care services. Both the underlying telecommunications technology and specific medical applications are evolving rapidly. Although telemedicine has the long-term potential to transform the way health care is provided, it poses a short-term policy dilemma for payers, including Medicare, which must decide whether to cover these services and how to pay for them.

Key Points

- ☐ Rural networks have been the most common sites for telemedicine applications but, as costs decline, urban use is expected to expand.
- ☐ Currently, Medicare payment is available only for telemedicine services that do not involve patient contact, such as teleradiology. Providers are not paid for patient-contact telemedicine services, such as teleconsultations.
- ☐ It is not yet known how the availability of insurance coverage for telemedicine services would affect costs or how to structure payments. To make informed coverage decisions, payers need a clear taxonomy of telemedicine procedures. They also need accurate information on the costs of these procedures under different coverage and payment structures.
- ☐ Other issues of concern include the lack of professional standards or practice guidelines for telemedicine services, state medical licensure laws that restrict out-of-state consultations, risks of medical liability exposure, and the need for ensuring protection of patient rights and privacy of electronic medical records.

MEDICAID DEMONSTRATION WAIVERS

Waivers granted under Section 1115 of the Social Security Act are designed to permit states to develop innovative demonstration projects for research purposes that are consistent with Medicaid's goal of providing access to medical care for the poor. In recent years, states have been using this authority to expand Medicaid eligibility to include low-income, uninsured persons and to change service delivery by enrolling all beneficiaries in managed care. While issues related to Section 1115 waivers may change if the Congress undertakes broad restructuring of Medicaid, they are likely to persist as long as the program retains its current form.

Key Points

- ☐ Many waiver requests appear to be focused more on achieving policy goals than on conducting research projects. New knowledge gained from these waivers will be limited because of research design inadequacies and the considerable previous research on Medicaid managed care.
- ☐ The design of some demonstrations raises concerns about access to care:
 - Some demonstrations have not included elements of successful programs, such as adequate planning; appropriate systems to monitor access, quality, plans' financial stability, and marketing; limited financial risk to providers; and educational programs about managed care for beneficiaries.
 - If capitation rates are set too low, they could discourage established managed-care organizations from participating.
 - Providers that have traditionally served the poor—federally qualified health centers, rural health clinics, and public hospitals—may be discouraged from participating.
 - Cost-sharing requirements in some of the waivers may discourage low-income beneficiaries from obtaining appropriate care.

Recommendation

If the Congress chooses to continue the current administrative and financing structure of the Medicaid program, the Commission recommends:

- a modification of the existing demonstration authority (Section 1115) to include more explicit research requirements, and
- adoption of a new waiver authority that allows states to expand coverage to the uninsured.

INSURANCE REFORM IN A VOLUNTARY MARKET

Recent state and private-sector initiatives have been designed to reform some aspects of the health insurance market, particularly coverage for small groups and individuals.

Key Points

- ☐ Such reforms must balance the goals of improving access to insurance for all consumers and reducing premium variation against the reality that groups or individuals may drop coverage if insurance costs exceed expected health expenditures.
- ☐ Over the next few years, these state and private-sector initiatives will demonstrate the impact of market reform on the size and composition of the uninsured and on premium levels.

Recommendations

Reform of the small-group market, whether at the federal or state level, should be based on several complementary elements.

Market rules should guarantee that:

- plans accept everyone regardless of health status,
- plans guarantee to renew existing coverage with limited premium increases,
- exclusions of preexisting conditions be limited to persons not previously insured and extend only for a limited time, and
- selective marketing practices be restricted.

Some form of community rating should be applied to the premiums charged by a health plan to defined classes of consumers. For a specific class, a limited degree of premium variation could be allowed. Health status, race, and sex should not be used to define a class.

Risk adjusters that predict differences in utilization or cost should be prospectively applied to payments to plans to reflect the expected relative risks of those they enroll. Some form of prospective reinsurance pool, retrospective stop-loss reinsurance, or partial capitation should supplement the use of risk adjusters.

Access to purchasing groups should be made available to small businesses and self-employed people to enhance their positions as purchasers in the insurance market. State and federal policies should support these groups through steps such as removal of statutory and regulatory barriers or creation of administrative structures.

The federal government should monitor and evaluate state and private-sector initiatives, so that their impact on insurance availability and premiums can be accurately assessed. These activities could allow the Congress to assess the desirability and design of uniform federal standards, as appropriate.

HEALTH PLANS' SELECTION, RETENTION, AND PAYMENT OF NETWORK PHYSICIANS

Managed-care plans use a variety of techniques to develop physician networks and to pay both network and nonnetwork physicians. To learn about current patterns in network development and payment, the Commission sponsored a major survey of managed-care plans.

Key Points

- ☐ Most plans review basic credentials such as licensure and hospital privileges when contracting with network physicians. Only a minority of surveyed plans review claims databases to profile practice patterns as part of their selection process.
- ☐ Use of site visits to offices and review of medical records to select new network physicians varies by plan type, with preferred provider organizations the least likely to use these tools.
- ☐ Physician turnover in plan networks, whether physician or plan-initiated, was only about 4 percent per year.
- ☐ Consumer complaints and quality review information play a larger role in renewal decisions than either physician profiling or consumer satisfaction surveys.
- ☐ Compensation arrangements for primary care physicians differ by plan types, ranging from salaries to fee for service.
- ☐ Although fee for service is still the predominant method for paying specialists, a significant minority of plans (especially group- and staff-model HMOs) use capitation or salaries.
- ☐ Risk-sharing arrangements, such as bonuses and withholds, are used most frequently by network and independent practice association HMOs.
- ☐ A majority of HMOs use either consumer surveys or quality measures in determining payment to primary care physicians. A majority also adjust compensation for utilization or cost measures.

PROVIDER-DRIVEN INTEGRATION

Physicians, hospitals, and other providers are creating new arrangements that integrate the financing and delivery of care. While these changes create significant new opportunities for payers, including Medicare, they also raise policy issues.

Key Points

- ☐ Both individual organizations and entire market areas are evolving away from independent fee-for-service practitioners toward more integrated systems of care.
- ☐ Providers are creating new organizations to bargain with managed-care plans. Plans are contracting with these organizations to obtain access to a large, organized physician base.
- ☐ There is rapid growth in physician-hospital organizations (PHOs), which allow physicians and hospitals to take a step toward integrated delivery while retaining their traditional lines of business. In 1994, 20 percent of hospitals and from 7 percent to 9 percent of physicians were involved with a PHO. Perhaps as much as 5 percent to 10 percent of the U.S. population received care from these organizations.
- ☐ Half of all PHOs are less than a year old; the typical PHO currently exhibits little integration of medical practice. As PHOs mature, however, they accept more capitation contracts and move toward greater clinical integration between physicians and hospitals.
- ☐ Even in established integrated delivery systems, integration has progressed more rapidly in business activities, such as contracting and purchasing, than in clinical activities.
- ☐ Provider-run integrated systems that accept capitation contracts from health care plans resemble HMOs, since they take on significant financial risk and adopt similar cost-saving strategies. Currently, only two states regulate PHOs for financial solvency.
- ☐ PHOs and other provider organizations are concerned about potential issues related to antitrust and self-referral laws, as well as regulations affecting joint ventures formed by nonprofit and for-profit entities.
- ☐ As these organizations develop, they may have a major impact on many facets of medical care, including the demand for primary care and specialist physicians.

NETWORK DEVELOPMENT IN RURAL AREAS

Rapid changes in the health care market are leading toward greater integration of health services in rural areas. This integration reflects the nature of many rural areas, with their small population base, few providers, and fragile economy.

Key Points

- ☐ Rural networks range from fully integrated service delivery systems to less formal coalitions of providers typically composed of similar types of providers.
- ☐ Network formation has been motivated by concerns about the viability and retention of rural providers, as well as the opportunity to maintain local autonomy while participating in managed-care arrangements.
- ☐ Although managed-care arrangements may not be feasible in all rural areas, managed-care enrollment has grown in rural areas in recent years. This growth is attributable to state health reform initiatives, including the redirection of state Medicaid programs toward managed care, along with employers' increased reliance on managed-care plans for their workers' coverage.
- ☐ Several federal and state programs provide financial and other assistance to support the development and expansion of rural health networks. Rather than specifically focusing on the formation of these networks, some of the federal programs facilitate their development by strengthening specific parts of the health system or certain providers.
- ☐ Rural providers' ability to participate in the changing market environment could be improved through better coordination of federal policies related to the recruitment and retention of providers, maintenance of existing public providers, changes in Medicare payment policy, and antitrust and fraud and abuse statutes.

PHYSICIAN NETWORKS AND THE ANTITRUST LAWS

As health care markets consolidate, concerns have been raised that antitrust laws and enforcement policies discourage certain beneficial innovations, such as the formation of physician-sponsored networks and other joint ventures.

Key Points

- ☐ Some have advocated amending current laws and policies to clarify those activities not subject to antitrust enforcement actions, allowing physicians to offset the increasing market power of insurers in establishing payment rates, and correcting possible biases in enforcement against physician-sponsored joint ventures.
- ☐ The limited available evidence does not indicate that current laws and policies have deterred the formation of potentially beneficial physician-sponsored networks.
- ☐ The Department of Justice and the Federal Trade Commission have responded to congressional and professional concerns by releasing two sets of enforcement statements.
- ☐ Physician-sponsored joint ventures are subject to the same legal requirements as joint ventures among competitors in other industries. Insurers engaging in anticompetitive practices are also subject to prosecution under the antitrust laws.
- ☐ Creating safe harbors or exemptions, especially in the absence of good information about which activities are truly beneficial, may promote market changes that are ultimately not in the best interests of consumers.

Recommendations

The Congress should direct the enforcement agencies to gather and make available to the public information on antitrust problems brought about by the evolving structure of health care markets. Issues that should be addressed include evidence of anticompetitive behavior of insurers in establishing physician fee schedules and unnecessary deterrence of the formation of potentially beneficial physician-sponsored networks.

Given the rapid changes in the organization and delivery of health services, the enforcement agencies should consider the appropriateness of alternative measures of market concentration.

At this time, there is not sufficient evidence to warrant granting physician-sponsored networks exemptions from potential challenges under the antitrust laws.

THE CHANGING LABOR MARKET FOR PHYSICIANS

Over the past several years, a consensus has emerged about the need for change in the supply and specialty mix of physicians. Some have argued that problems of physician oversupply and excess specialists will be resolved as the health care market becomes more competitive. They point out that growth of resource-conscious integrated health systems will change the number and mix of health professionals needed. These developments will then result in physicians not being able to find jobs in medicine or being employed at greatly reduced compensation, and thus send a signal to students, educators, and practicing physicians to change their behavior.

The opportunity now exists to see what changes in the organization and financing of health care are actually doing to the labor market for physicians. While there are numerous anecdotes, there has been no systematic assessment of this issue.

Key Points

- ☐ There have been some changes in the labor market for physicians, with increased compensation for generalists and growing student interest in generalist fields.
- ☐ On the other hand, other specialties continue to offer higher compensation and are still increasing their ranks. There is little indication that overall job opportunities for physicians are contracting.
- ☐ Competitive forces may be at work. Given the length of the training pipeline, the large pool of practicing physicians, and the differing incentives in the markets for physician training and for physicians' services, however, it is too soon to see widespread effects.
- ☐ Even if graduates of U.S. medical schools respond to market pressures, large-scale change may not occur due to the continued influx of international medical graduates.

MEDICAL LIABILITY REFORM

In the past few years, there has been considerable debate about the need to reform the medical liability system. As managed care grows, it will be increasingly important for the medical liability system to help maintain the quality of care while not impeding efforts to provide appropriate, cost-effective care. Although incremental changes have been the focus of this debate, many have come to believe that major improvement can come only through a substantially different system.

Key Points

- ☐ The medical liability system does not adequately prevent medical injuries or compensate injured patients.
- ☐ The current system promotes the practice of defensive medicine and is itself administratively inefficient.

Recommendations

The Congress should effect the widespread adoption of certain tort reforms, including:

- reasonable schedules for noneconomic damages (interim limits may be employed until a schedule is adopted), offset of awards for collateral source payments, periodic payment of large awards for future damages, and allocation of a portion of punitive damages awards to quality improvement activities;
- schedules for attorneys' contingency fees, thresholds for joint and several liability, and reduction to a reasonable period of long statutes of limitations for minors; and
- encouragement of the use of binding alternative dispute resolution methods (nonbinding alternative dispute resolution should not be required).

Work should begin to develop a future medical liability system that would include a fast, efficient administrative system to compensate patients and a complementary system to detect and prevent medical injuries. To this end, the Congress should provide support for demonstrations and evaluations of binding alternative dispute resolution systems, enterprise liability, and alternative standards of compensability including no-fault. The federal government should support research on medical injuries and efforts to design and test systems to prevent injuries.

Proposals to require a certificate of merit, use pretrial evaluation panels, and accord special legal status to practice guidelines need to be better tested and understood before they warrant being federally mandated. The Commission recommends against unconditional adoption of the rule that would require the losing party to pay the winner's legal costs, but variations of this rule may be worth investigating in certain contexts. The public should not be given access to the medical liability information in the National Practitioner Data Bank.

MONITORING QUALITY AND PERFORMANCE

Efforts to monitor quality of care and the performance of health plans are evolving as the health care system undergoes rapid transition. New approaches to evaluating quality of care, such as performance reports and voluntary accreditation, are taking shape. The Medicare and Medicaid programs are beginning to build on private-sector efforts to provide beneficiaries with information on health plan quality and performance. Existing approaches, such as health plans' internal quality assurance programs and state regulations, are adapting to a changing market for health services in which accountability and quality improvement are key to successful competition.

Key Points

- ☐ Most managed-care plans, particularly HMOs, undertake a variety of activities to monitor or influence care, and provide for accountability through internal quality assurance programs.
- ☐ Substantial gains have been made in the development and testing of indicators for performance reports and in studying consumers' needs for information.
- ☐ A majority of managed-care plans have taken the initial steps, including the collection of data, toward performance measurement. These efforts, which are more prevalent among HMOs, have some important limitations:
 - Few performance reports present information about multiple dimensions of care.
 - Measures presented in performance reports lack adequate adjustment for differences in characteristics of plan members.
 - Nearly all performance reports are based on self-reported data and are not audited by independent organizations.
 - Performance reports do not present information on the financial risk borne by providers.
- ☐ Voluntary accreditation is being used for external assessment of the structure and effect of health plans' quality assurance programs, particularly by HMOs.
- ☐ Nearly all states regulate quality of care in HMOs, but few regulate other types of health plans.

Recommendations

The Health Care Financing Administration should make performance reports on the managed-care plans that contract with the Medicare program available to beneficiaries to inform their choices and

should encourage states to make them available to Medicaid beneficiaries. These reports should be externally validated and should include comparable data across plans. Efforts should be coordinated with ongoing activities in the private sector.

The Health Care Financing Administration should explore methods to inform Medicare and Medicaid beneficiaries about the risk-sharing arrangements that available plans have with their participating physicians. Assuming a feasible method is developed, health plans should be required to disclose these arrangements to beneficiaries.

DEVELOPMENT AND USE OF PRACTICE GUIDELINES

The activities of the Agency for Health Care Policy and Research and other groups have led to the creation of new practice guidelines and better information about their use. These developments have implications for the appropriate federal role in guideline development and dissemination.

Key Points

- ☐ Practice guideline development has increased substantially in recent years, providing more options for potential guideline users. Access to and selection among options could be improved by systematic evaluation and dissemination.
- ☐ Mere dissemination of guidelines is insufficient to ensure their widespread use. The potential to affect practice is greater where valid guidelines are accompanied by appropriate incentives and implemented in an environment that supports their use.
- ☐ Guidelines developed for general use are often adapted for local settings or modified for other uses, such as physician profiling.
- ☐ Practice guidelines are being used by an increasing variety of parties interested in affecting the cost and quality of medical care, among them purchasers, organized systems of care, and government programs.

Recommendations

Practice guideline development and related activities sponsored by the Agency for Health Care Policy and Research play an important role in advancing public- and private-sector activity in this field. The Congress could strengthen this role by directing the agency to focus guideline development on topics for which private-sector development is unlikely or problematic and on those topics that would be most useful to organized groups of providers and systems of care.

The Agency for Health Care Policy and Research should continue to take steps to facilitate the use of the practice guidelines it issues by (1) developing review criteria for each guideline issued, and (2) supporting the development of tools to facilitate compliance with the guidelines.

The Agency for Health Care Policy and Research should facilitate the development and use of valid guidelines produced in both the public and private sectors by (1) publishing and updating summaries of the scientific evidence on salient medical conditions and services, (2) coordinating a public- and private-sector partnership for developing a clearinghouse to evaluate and disseminate guidelines, and (3) strengthening the research infrastructure needed to improve guideline development and use.

Part I

Medicare and Medicaid:

BACKGROUND

and OVERVIEW

**MEDICARE AND MEDICAID:
BACKGROUND AND OVERVIEW**

In 1986 when the Physician Payment Review Commission was established, Medicare expenditures for physicians' services were growing at double-digit rates, placing an increasing burden on taxpayers and beneficiaries who share in financing program costs. The program's method of paying physicians on the basis of their historical charges had distorted the pattern of relative payments across physician specialties, services, and geographic locations. Concern was also growing about the increasing financial liability of Medicare's 30 million elderly and disabled beneficiaries and their access to care. Physicians, policymakers, and beneficiaries alike agreed that these problems had to be remedied.

With the passage of the Omnibus Budget Reconciliation Act of 1989 (OBRA89), the Congress approved a new system of Medicare physician payment consisting of a fee schedule based on resource costs, limits on the amount physicians may charge beneficiaries above the fee schedule amount, and volume performance standards (VPS) (coupled with expanded federal support for effectiveness research and development of practice guidelines) to control expenditure growth. This package of reforms built on a series of policy changes enacted since the early 1980s. Subsequent legislation in 1990, 1993, and 1994 reaffirmed the direction of these reforms.

The effects of these changes have been substantial, with many of the policy goals set out in OBRA89 having been achieved. The pattern of relative payments has been significantly realigned. Moreover, other payers, including private insurers and state Medicaid programs, are adopting Medicare's relative value scale in realigning their own payments. A mechanism was put in place to link fee updates to performance in slowing volume growth, giving Medicare a tool to rein in expenditures. Balance billing, the practice of charging patients more than Medicare's allowed charge, decreased dramatically, reversing the trend of beneficiaries paying an ever larger proportion of income on out-of-pocket costs (CBO 1986). In addition, there has been considerable progress in producing and synthesizing information on clinical effectiveness and creating tools to improve decisions about appropriate medical care, both by the federal Agency for Health Care Policy and Research (AHCPR) and by the private sector.

In hindsight, however, payment reform has not been an unqualified success for several reasons. In part this reflects inconsistencies within the policy that resulted from compromises that were made in crafting the reform. For example, distortions in relative values have been reintroduced due to the existence of separate volume performance standards for different categories of services: surgical, primary care, and other nonsurgical. As a result, the shifts in relative payments accomplished over the past several years will likely be reversed unless further legislative changes are made.

Second, some expectations about payment reform's effects may have been unrealistic given the underlying incentives of fee-for-service medicine. For example, despite progress in slowing the rate of

growth in physicians' services, expenditures continue to increase at a rate many consider unaffordable. At issue is the extent to which price constraints can hold down expenditures within the context of a fee-for-service payment structure or whether a more fundamental restructuring of the program, consistent with movement in the private sector toward capitated payment to organized systems of care, is necessary.

Third, although changes in physician payment have not diminished access to care, neither have they led to improvements for the most vulnerable beneficiaries, including the poor, the disabled, and minorities. These populations use fewer physicians' services, are more likely to receive care in the emergency room, and have poorer health outcomes. Finally, although there is great enthusiasm about progress in developing practice guidelines, new directions are needed to ensure that these can be effective tools for reducing inappropriate care and encouraging more cost efficient practice styles.

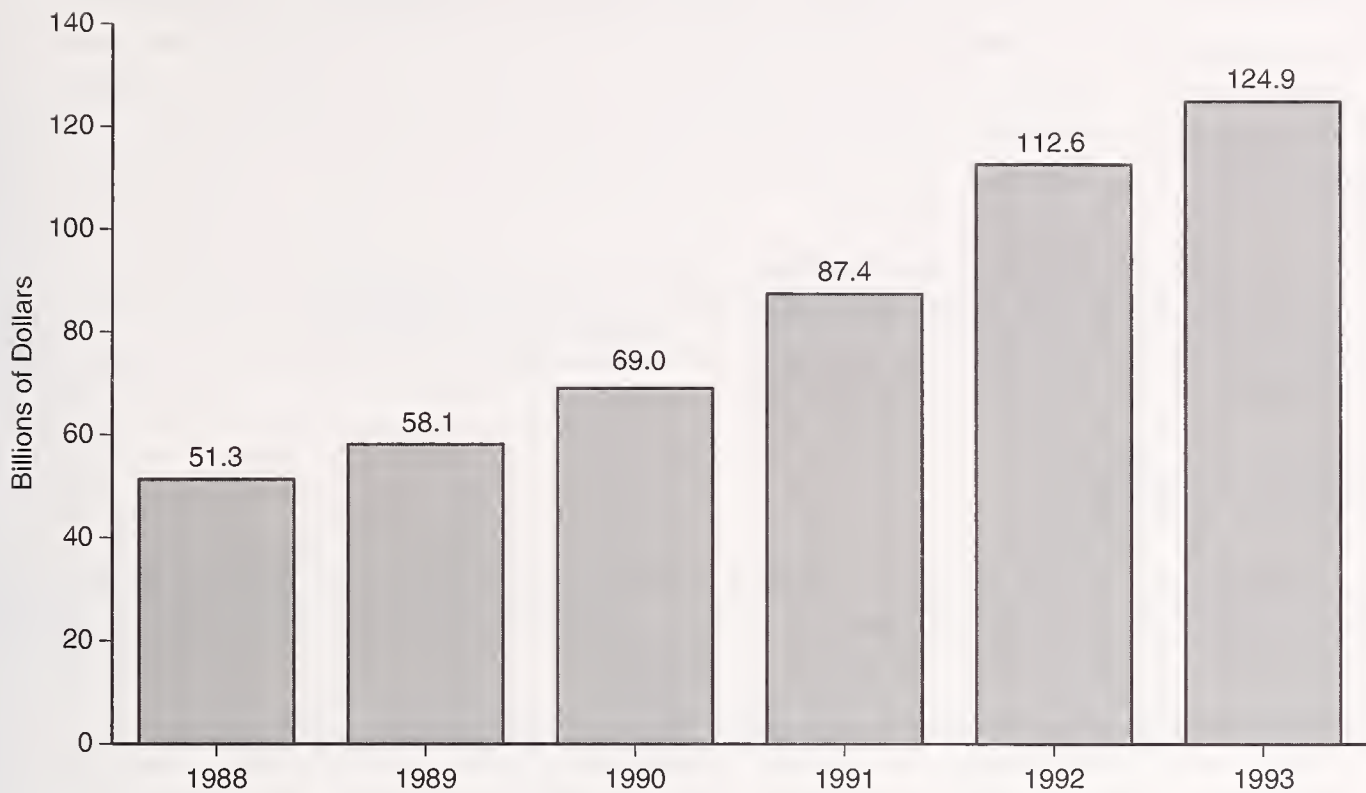
In addition, there are new challenges facing the Medicare program. Chief among these is how to respond to the changing nature of the U.S. health care system with its growing emphasis on integrated systems of care; capitated payment; and new roles for purchasers, plans, providers, and consumers. Dynamic changes in the private sector are creating new pressures to shift Medicare's focus from its roots in traditional indemnity insurance to more innovative methods of service delivery and payment. At issue is how to maintain Medicare's commitment to its beneficiaries while taking advantage of the benefits that a competitive marketplace may offer.

Other issues are also drawing the attention of policymakers. With Medicaid now one of the fastest-growing components in state budgets, fiscal budgetary pressures are motivating the states to seek waivers from federal Medicaid rules in order to test new approaches for providing medical care to the poor and expanding coverage to those now uninsured. A key challenge is how to allow states to experiment while maintaining accountability to federal program standards, particularly ensuring that access and quality are maintained. Broader reforms, such as block grants and federalizing the program, are also being contemplated as federal policymakers seek ways to rein in high rates of growth in Medicaid spending (Figure I-1).

In addition to changes in financing and payment, the health care market is also characterized by the rapid pace of technological change that is creating new frontiers in diagnosis and therapy. Besides contributing to cost pressures, this explosion of new technologies is placing demands on Medicare's processes for making decisions about which services to cover. Telemedicine applications, in particular, are creating new questions about coverage and payment.

This chapter provides the background material for understanding these issues. It begins by setting the stage that confronted the Congress when the Commission first set to work. The chapter then outlines the basic features of payment reform—the Medicare Fee Schedule, Volume Performance Standards, and limits on beneficiary financial liability—and describes the advances in policy goals made as a result of these changes. It concludes with a glimpse of the challenges that lie ahead, setting the context for the analyses and recommendations included in the first half of this report.

Figure I-1. Total Medicaid Spending, 1988-1993



SOURCE: Kaiser Commission on the Future of Medicaid 1994.

NOTE: Expenditures do not include Arizona, U.S. territories, accounting adjustments, or administrative costs.

THE CALL FOR PAYMENT REFORM

In the late 1980s, consensus was building among physicians, beneficiaries, and policymakers that a major restructuring of physician payment under Medicare was needed to replace what many considered an inequitable and inflationary system. In 1983, Medicare's method of paying hospitals under Part A had been significantly overhauled to address rising costs. It was clear that it was time to bring Medicare's spending for physicians' services—which then made up more than 25 percent of total Medicare expenditures—under control as well. The lack of a rational basis for determining fees, acceleration of program outlays, and increasing financial liability of beneficiaries were issues that had to be addressed.

Distortions in Payments to Physicians

Pressure for payment reform arose in part from criticisms that Medicare's method of paying physicians, referred to as customary, prevailing, and reasonable (CPR), had created wide variations in payments among types of procedures, localities, and specialties that could not be attributed to differences in costs of practice. Under the CPR method, the payment for each service was determined by what the physician had charged in the past (customary) and what other physicians in the locality and specialty charged (prevailing). The reasonable, or allowed, charge was the lowest of the actual charge, the customary charge, and the prevailing charge.

The CPR payment method was under fire because it was inequitable, inflationary, and excessively complicated. First, because the fees were based on individual physicians' historical charges, two physicians who provided identical services could receive considerably different payments. Second, the differential in payments across geographic areas exceeded that which could be explained by differences in costs (Table I-1). Third, surgical and technical procedures had become increasingly overvalued relative to visits and consultations, reflecting the higher fees paid for newer services.¹ This distortion contributed to the marked disparity between the incomes of primary care practitioners and other physicians and perhaps also contributed to more rapid growth in the provision of technical services than justified by standards of appropriateness. Finally, administration of the system, which required maintaining individual charge profiles for every physician for every service, was complex, time-consuming, and costly.

Growth in Expenditures

Also troubling were double-digit growth rates in expenditures for physicians' services. Between 1965 when the Medicare program was enacted and the mid-1980s, spending for physicians' services

Table I-1. Distortions Under Medicare's Charge-Based Payment System

Example 1. Prevailing Charges for Services in Two Cities, 1984

Service	Washington, DC	New York City
Total Hip Replacement	\$1,547	\$4,126
Comprehensive Office Visit	83	72

SOURCE: Medicare Directory of Prevailing Charges, 1984.

Example 2. Prevailing Charges for Selected Services in Urban Areas of New Jersey for Two Specialties, 1985

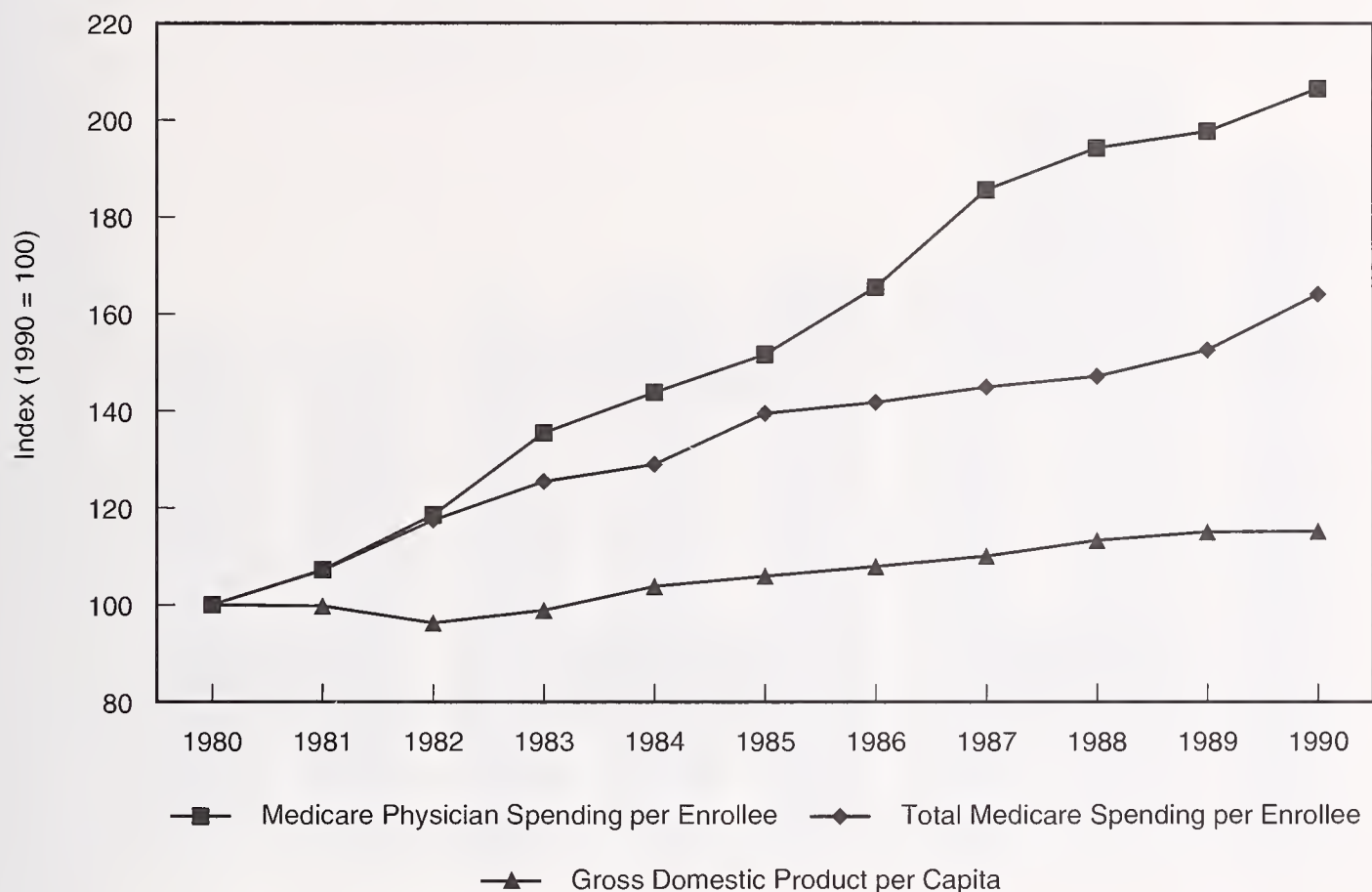
Service	General Surgeon	Thoracic Surgeon
Office Visit, New Comprehensive	\$75	\$60
Office Visit, Intermediate	40	35
Insert Pacemaker	1,343	1,827

SOURCE: Physician Payment Review Commission analysis of 1985 Medicare claims, 100 percent summary file and prevailing charge file.

¹ Although productivity for many of these services improved over the time, under CPR, their fees were not adjusted downward to reflect this change.

increased at an average annual rate of more than 13 percent. This rate peaked during the first half of the 1980s, averaging 16 percent annually.² Increases in Medicare expenditures for physicians' services had continually outpaced growth in both the gross domestic product (GDP) and total Medicare expenditures (Figure I-2). This high rate of growth was troublesome given substantial pressure to reduce the federal deficit and strengthen the nation's economy.

Figure I-2. Trends in Medicare Physician Spending per Enrollee, Total Medicare Spending per Enrollee, and Gross Domestic Product per Capita, 1980-1990



SOURCE: Physician Payment Review Commission analysis of information compiled from the Health Care Financing Administration and the Congressional Budget Office.

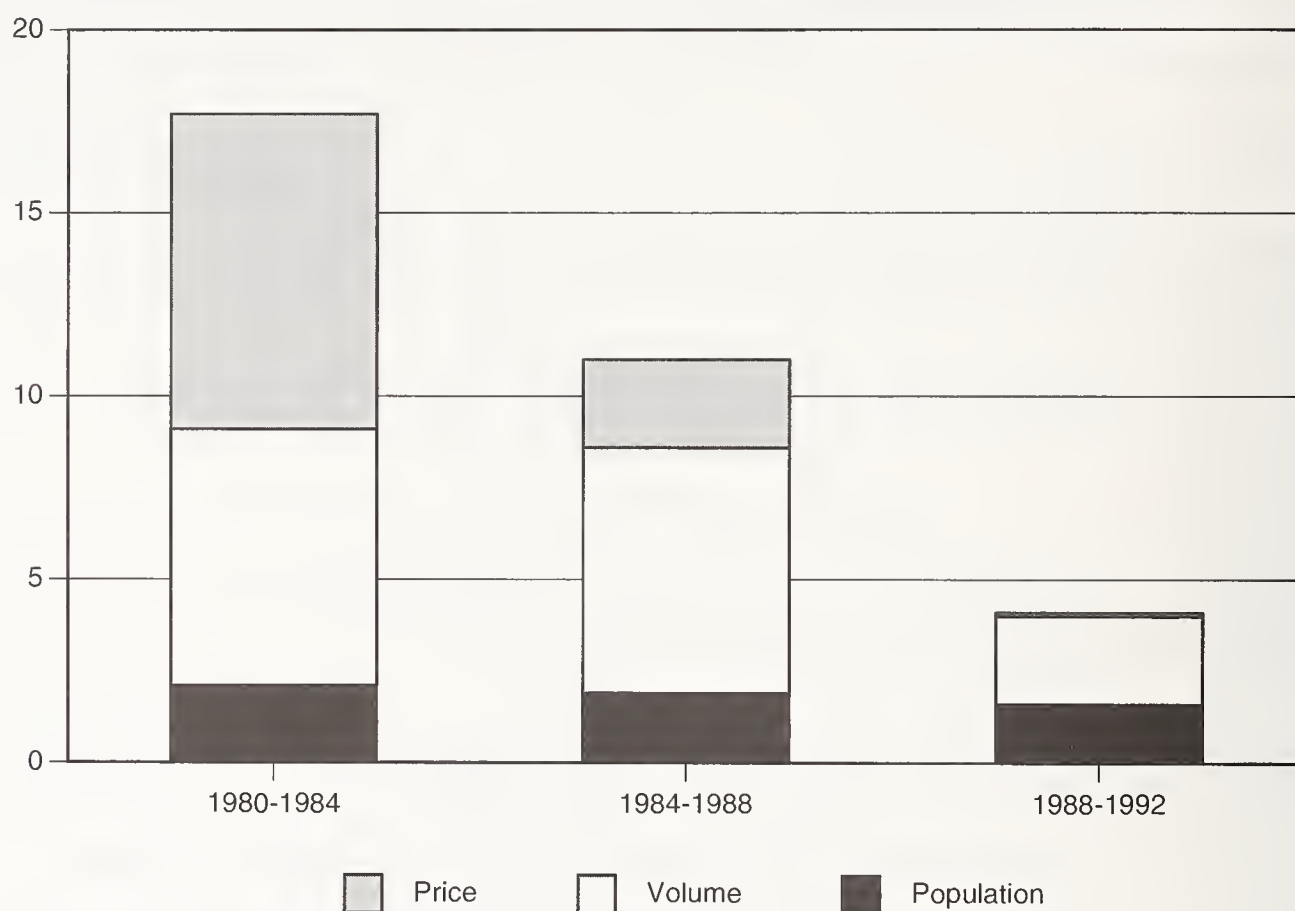
NOTE: Values have been adjusted for inflation and are expressed in 1980 dollars.

Increased Medicare outlays can result from two sources: increases in payment rates and increases in the quantity or the mix of services provided per beneficiary (also referred to as volume and intensity). Increases in services can be separated further into two components: those due to growth

² During this period, the annual general inflation rate was between 5 percent and 6 percent.

and aging of the population and those due to changes in the practice of medicine. While population growth is often mentioned as being a major cause of rising physician expenditures, in fact, its impact on growth in Medicare physician spending has been relatively small (about 1.5 percent to 2.0 percent annually). More important are the impact of volume and price which together accounted for increases of 15.6 percent between 1980 and 1984, and 9.1 percent between 1984 and 1988 (Figure I-3).

**Figure I-3. Growth in Medicare Expenditures for Physicians' Services
(for Aged Enrollees) by Component, 1980-1992**



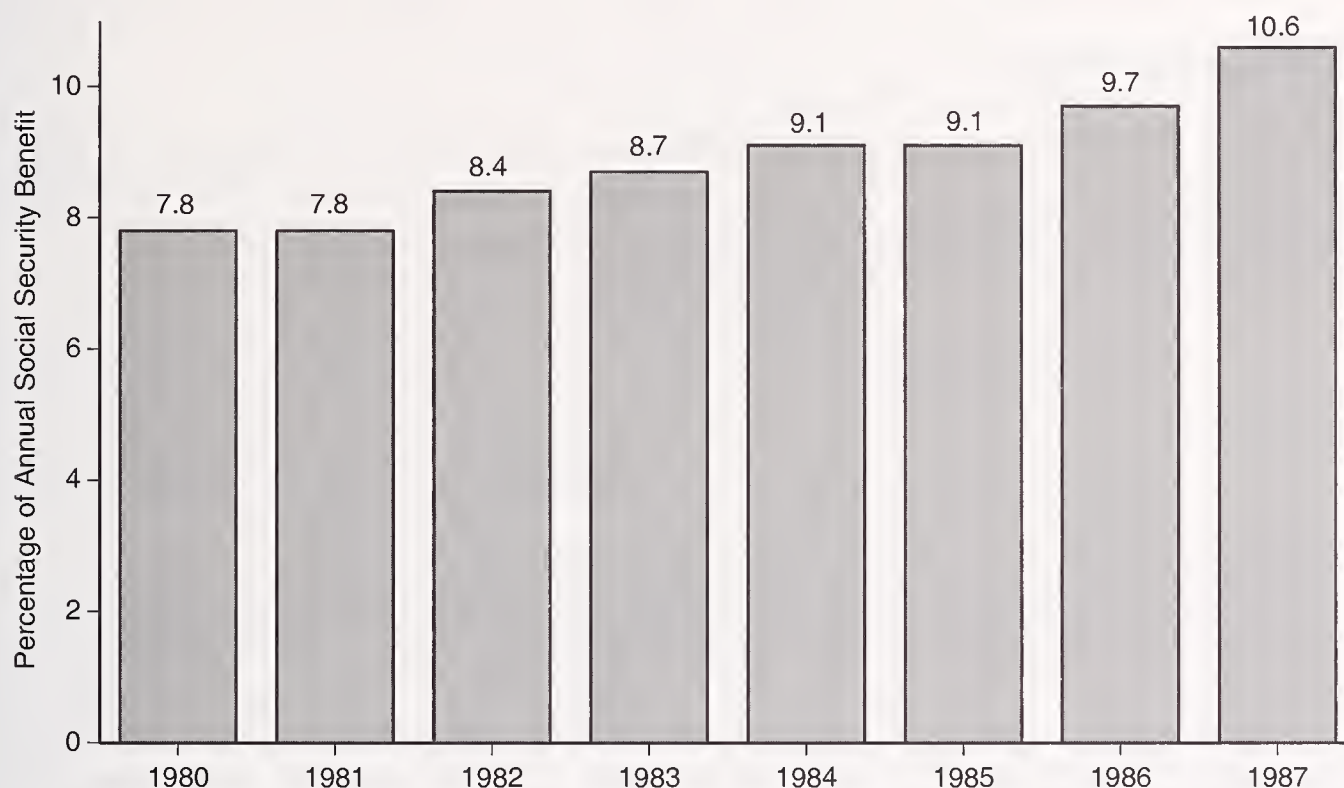
SOURCE: 1994 Annual Report of the Board of Trustees, Federal Supplementary Medical Insurance Trust Fund.

The distinction between growth attributable to price and growth attributable to volume and intensity is important because policies to constrain expenditure growth can be directed at either or both. During the 1970s and 1980s, the primary policy levers to restrain Medicare expenditure growth were restraints on price. These took the form of limiting increases in prevailing charges to increases in the Medicare Economic Index, across-the-board fee freezes, and fee cuts for procedures that the Congress specified as overvalued. While these price constraints were effective in slowing expenditure growth, there was consensus that growth could not be held down over the long term without a mechanism to control volume and intensity (Figure I-3).

Increasing Financial Liability of Beneficiaries

A third force motivating the push for payment reform was concern about the impact of rising program costs on Medicare beneficiaries. Increases in out-of-pocket costs, including monthly premiums for Medicare Part B, deductibles, copayments, and liabilities for balance bills, were outpacing increases in Social Security benefits (Figure I-4).³ These came on top of other expenditures borne by older Americans including cost sharing for Part A, premiums for supplemental insurance, and expenses for services not covered by Medicare such as prescription drugs, eyeglasses, and long-term care.

Figure I-4. Average Beneficiary Out-of-Pocket Costs for Medicare Part B as a Percentage of Annual Social Security Benefit, 1980-1987



SOURCE: Physician Payment Review Commission 1990.

During the mid-1980s, Medicare beneficiaries were provided with some relief from rising costs as a result of the Participating Physician and Supplier (PAR) program. Like physicians participating in private insurer networks, PAR physicians agree to accept the Medicare allowed charge as payment in full on all claims, forgoing the opportunity to bill patients any additional amount. In return, they are listed in a directory available to beneficiaries and receive expedited claims processing. In addition, they were permitted to raise fees during a period of price constraints for other doctors.

³ In 1992, the elderly spent 11.9 percent of household income on health care, compared with 10.6 percent in 1984 (Committee on Ways and Means 1994).

Beneficiaries also benefited from the limits on maximum allowable actual charges (MAACs), the amount physicians who did not sign PAR agreements could charge patients above the Medicare fee. These limits were heavily criticized, however, because they were complex to administer (the limits varied from physician to physician and service to service) and virtually impossible for beneficiaries and physicians to understand.

THE POLICY RESPONSE

After taking a series of incremental steps to address problems within the Medicare program, the Congress enacted a comprehensive reform in OBRA89. The major features of the payment system created in that law are described below.

The Medicare Fee Schedule

The Medicare Fee Schedule was designed to introduce predictability and equity into Medicare physician payment by basing payments on the relative resources used to provide different services. At its heart is a relative value scale (RVS) consisting of three components (Table I-2):

- a physician work component that reflects the time and intensity of the physician's effort in providing a service;
- a practice expense component that includes costs such as office rent, salaries, equipment, and supplies; and
- a separate professional liability insurance component that reflects premium expenses.

The RVS is translated into a schedule of fees when the weighted sum of the three components is multiplied by a monetary conversion factor. A geographic adjustment factor is also applied to each of the components to allow payments to vary from one locality to another, reflecting differences in costs of practicing medicine. Implementation of the fee schedule began in 1992, with a five-year phase-in that will end in 1996.

Although the transition to full payment under the fee schedule is not yet complete, relative payments have already changed substantially. As anticipated, payment levels have increased for evaluation and management services and for services delivered in rural areas; levels have decreased for surgical and technical procedures and for services delivered in metropolitan areas. Family and general practitioners have seen the largest increase in payments per service at 7.6 percent annually over the two-year period from 1991 to 1993 for a cumulative increase of close to 16 percent. Physicians experiencing corresponding reductions included surgeons, radiologists, and subspecialists in internal medicine (e.g., cardiology and gastroenterology) (see Chapter 2).

In the future, the shift toward primary care is expected to become even more pronounced as practice expense relative values, now based on historical charges, are replaced with those based on resource

Table I-2. Components of the Relative Value Scale

Component	Source and Content
Physician Work (50 percent of total)	Based on resource costs, reflecting relative time, expertise, and stress of service Refined by the Health Care Financing Administration based on input from the American Medical Association's Relative Value Scale Update Committee and public comments Revised every five years
Practice Expense (45 percent of total)	Based on historical charge levels To be replaced in 1998 with resource-based values that reflect staff, equipment, and supplies required to provide services, as required by Social Security Act Amendments of 1994 (P.L. 103-432) Reduced by 50 percent for certain services when provided in outpatient departments or inpatient settings receiving Part A overhead payments
Malpractice Expense (5 percent of total)	Based on historical charge levels

SOURCE: Physician Payment Review Commission.

costs. Under the technical amendments bill passed at the end of the last Congress, the Health Care Financing Administration was directed to develop resource-based practice expense relative values for implementation in 1998. This provision built on recommendations and analyses developed by the Commission (see Chapter 2).

Volume Performance Standards

The experience of the 1980s, when increased service use was the principal force driving up expenditures for physicians' services, suggested that a mechanism with the explicit aim of containing volume and intensity was needed to maintain spending at a sustainable level. OBRA89 created such a mechanism in the system of Volume Performance Standards.

The VPS serves two purposes. First, it is a budgeting tool that improves predictability in program spending by linking payment levels to the growth in volume and intensity of physicians' services. Second, it provides a collective incentive to physicians to develop tools and disseminate information that can be used to reduce inappropriate care and promote cost-effective practice.

Under OBRA89, a performance standard (essentially a target rate of expenditure growth) is to be set annually either by the Congress, after consulting with the Commission and the Secretary of Health

and Human Services (HHS), or by a default formula specified in law.⁴ Then payment rates are adjusted in subsequent years as actual expenditure growth exceeds or falls below these standards. Performance standards were first applied to physicians' services in 1990; fee updates based on physicians' performance in meeting these standards were first applied in 1992.

In the years since passage of OBRA89, annual growth in expenditures for physicians' services has slowed considerably relative to the historical trend. Between 1986 and 1991, expenditures grew at an annual rate of 10.5 percent, compared with inflation in the general economy of about 4 percent. By contrast, between 1991 and 1993, estimated expenditure growth slowed to an average rate of 3.8 percent (Figure I-5).⁵ Because performance standards were set with the expectation of higher growth, Medicare fee updates for 1994 and 1995 were much larger than had previously been anticipated.

The reasons for this slowdown in growth are unclear. Possible explanations include responses to the incentives created by the VPS and secular changes in the practice of medicine. The latter include slowed growth in technologies introduced during the mid- to late-1980s, such as cataract surgery and magnetic resonance imaging, and more efficient practice styles spilling over into Medicare as a result of the increasing percentage of physicians' other patients enrolled in managed care. Another explanation is that low volume growth in recent years merely reflects its inherent volatility. In fact, the trend probably reflects a combination of these factors.

Even at this rate, however, policymakers continue to be concerned about both the high level of spending and uncertain prospects about growth rates in the future. Physicians' services account for about 50 percent of spending under Medicare Part B and, in fiscal year 1994, amounted to almost \$30 billion.⁶

Despite the moderating trend in physicians' services in recent years, growth in total Medicare expenditures continues to exceed growth in the GDP, raising questions about how much of the nation's income should be spent on health services. Moreover, Medicare expenditures as a whole are outpacing growth in private sector health spending (11.5 percent growth in Medicare versus 8.6 percent growth for private health insurance expenditures between 1992 and 1993) (Levit, et al. 1994).⁷ In addition, preliminary data suggest that the rate of expenditure growth for Medicare physicians' services in 1994 and 1995 is likely to rise.

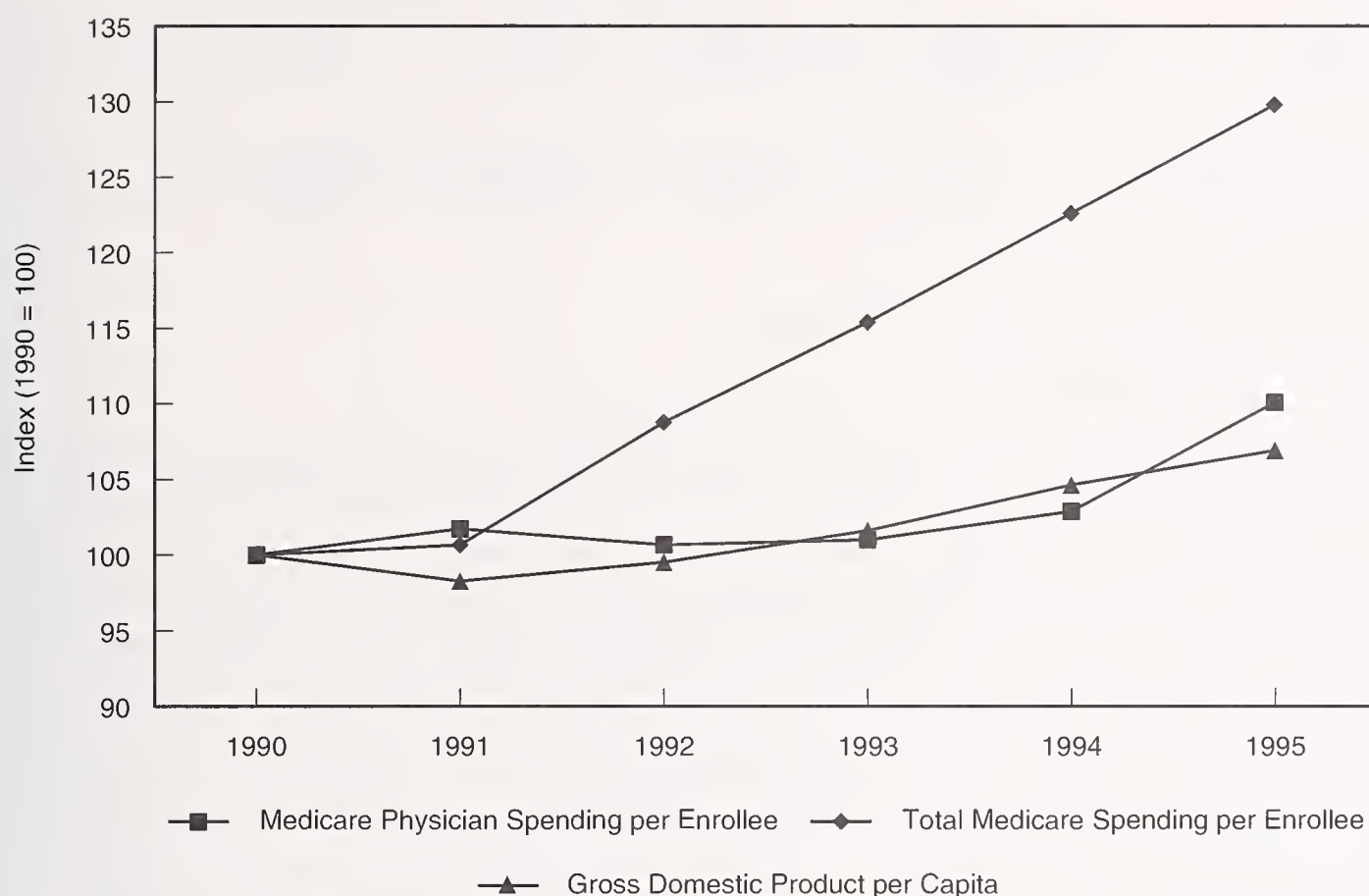
⁴ In fact, the default formula has been used in most years.

⁵ General inflation during this period was about 3 percent annually.

⁶ Other services covered under Part B include outpatient hospital services, laboratory services, home health services, artificial devices, speech and physical therapy, and ambulance services.

⁷ Among the components of Medicare spending, inpatient hospital services and physicians' services account for nearly three-quarters of spending. Growth rates are much higher, however, for other types of services including home health and hospice services (Committee on Ways and Means 1994).

Figure I-5. Trends in Medicare Physician Spending per Enrollee, Total Medicare Spending per Enrollee, and Gross Domestic Product per Capita, 1990-1995



SOURCE: Physician Payment Review Commission analysis of information compiled from the Health Care Financing Administration and the Congressional Budget Office.

NOTE: Values have been adjusted for inflation and are expressed in 1990 dollars. 1994 and 1995 values are estimated.

As the VPS system has evolved, several other problems have emerged. First, despite recent high updates in Medicare fees, weaknesses in the design of the default formula will result in substantial reductions in the conversion factor over the next five years. Second, the existence of three performance standards is introducing serious distortions in the patterns of relative payment, the very problem the Medicare Fee Schedule was intended to correct. Although the Commission had recommended a single performance standard, OBRA89 created a system with two: one for surgical services and one for nonsurgical services. A third standard (primary care services) was added under OBRA93 in response to concerns that growth in volume for technical procedures in the nonsurgical service category was depressing payment levels for primary care.⁸ Even though this has resulted in larger fee updates for primary care services than under the two standard system, surgical services have received even higher updates (Table I-3) (see Chapter 3).

⁸ This category is based on a set of procedure codes, not on physician specialty.

Table I-3. Medicare Conversion Factors, by Service Category, 1992-1995

Category	Conversion Factors				Percent Change 1992-1995
	1992	1993	1994	1995	
Surgical Services	\$31.00	\$31.96	\$35.16	\$39.45	27
Primary Care Services	31.00	31.25	33.72	36.38	17
All Other Services	31.00	31.25	32.91	34.62	12

SOURCE: Physician Payment Review Commission.

NOTE: These categories are based on procedure codes, not physician specialty.

In addition to creating a mechanism to control volume and intensity growth, OBRA89 also provided federal support for development of tools to assist physicians in doing so. It established the Agency for Health Care Policy and Research, giving it the mission of enhancing the quality, appropriateness and effectiveness of health care in part by promoting improvements in clinical practice. Important functions that AHCPR has undertaken include development of tools (such as practice guidelines) and information (such as research on effectiveness and outcomes) that can help physicians reduce uncertainty and develop more efficient practice styles. AHCPR has since issued 15 guidelines with 7 more under development; the private sector has issued dozens more. The variety of uses for guidelines has also expanded, suggesting the need for new directions in their development and dissemination for both AHCPR and private sector organizations (see Chapter 17).

Beneficiary Liability

OBRA89 responded to beneficiary and physician frustration with MAAC limits by replacing them with straight percentage limits on balance billing. Phased in over a three-year period beginning in 1991, physicians may now charge beneficiaries no more than 115 percent of the fee schedule amount.⁹ The legislation also set in place a process for monitoring trends in beneficiary liability and access to care. Annual reports from both the Commission and the Secretary of HHS now provide the Congress with information that can serve as an early warning signal of problems in beneficiaries' ability to obtain needed care.

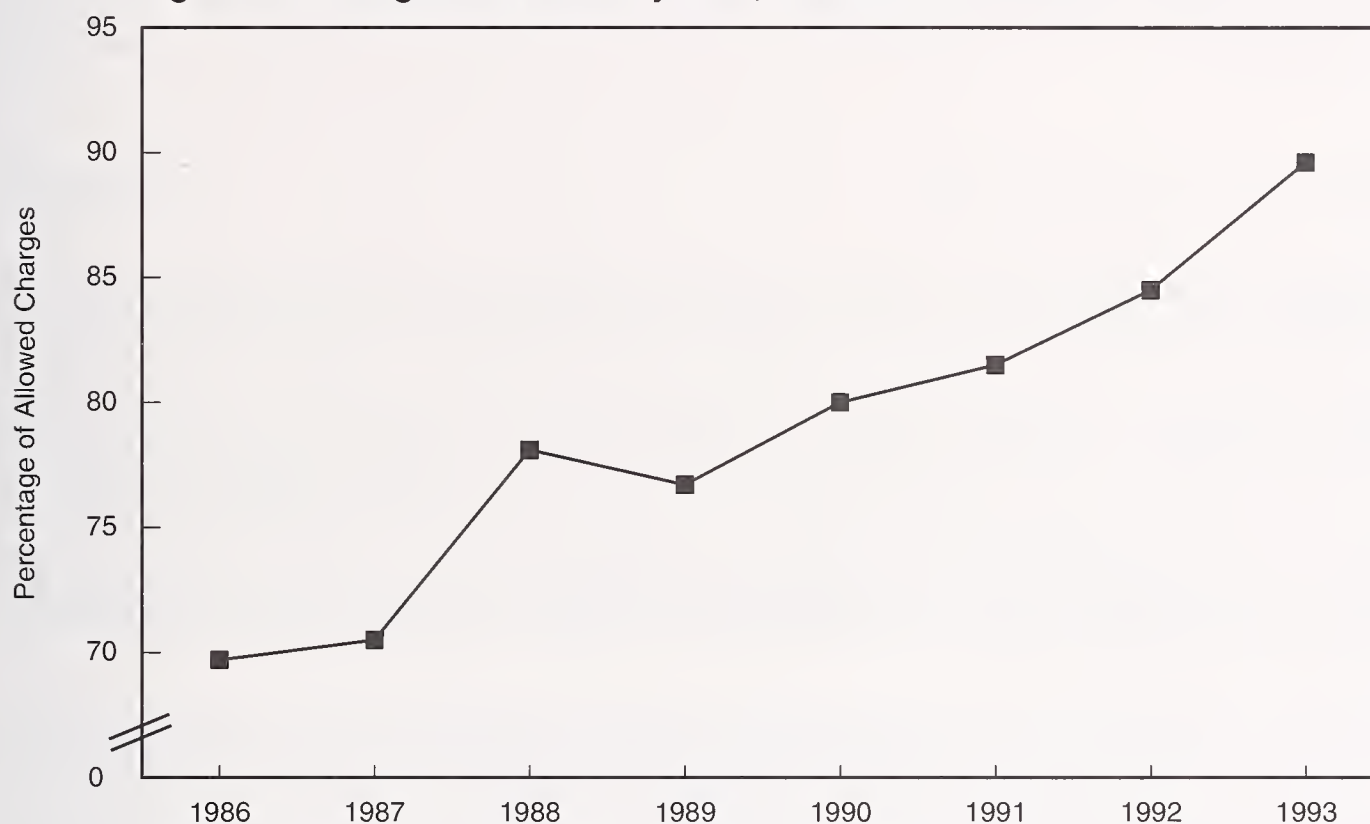
Since passage of OBRA89, the three indicators of changes in beneficiary liability—participation rates, assignment rates, and the level of balance billing—have all signaled improvement.¹⁰ Participation rates (the percentage of physicians signing PAR agreements) have increased, rising from 70 percent in 1991 to

⁹ Because nonparticipating physicians are paid 95 percent of the fee schedule amount, the effective charge limit is 109.25 percent.

¹⁰ Assignment and participation were both increasing prior to 1989 so it is difficult to know how much of the recent increase can be attributed to the legislation.

83 percent in 1993. Assignment rates (the percentage of allowed charges for which physicians accept the Medicare fee as payment in full) have gone up, rising from 85 percent in 1991 to 92 percent two years later (Figure I-6). Balance billing has declined substantially as well; once amounting to 7 percent of allowed charges, balance bills now total less than 1.5 percent of allowed charges. Variation across specialties persists, however, with anesthesiologists continuing to have the highest rates of balance billing.

Figure I-6 . Assignment Rates by Year, 1986-1993



SOURCE: Physician Payment Review Commission analysis of Medicare claims, 1985-1990, 1 percent beneficiary file and 1991-1993, 5 percent beneficiary file.

With respect to access to care, the Commission's analyses also suggest that the picture remains bright: access to care remains good for most beneficiaries, with payment reform having no untoward effects. On the other hand, some vulnerable subpopulations such as those over age 85, individuals living in poverty areas, and the disabled continue to experience access barriers that existed prior to the 1989 reforms (see Chapter 1).

The Commission has cautioned that reductions in Medicare payment rates, necessitated by efforts to reduce the federal deficit, must be balanced with consideration of their impact on access. Medicare payment rates are now 68 percent of those of private payers.¹¹ This is slightly lower than the ratio in

¹¹ This number differs from the Commission's previous estimate of 59 percent. Five percentage points of the difference are due to using more recent data and including a correction for HMO payments. Thus the correct 1994 estimate should have been 64 percent. The remaining 4 percentage points of the difference between the 1994 and 1995 estimates is the result of the high 1995 Medicare fee update.

1990; the ratio fell in the early 1990s due to Medicare payment reductions and rose more recently due to a combination of high Medicare updates and moderation of payment increases among private payers.

Larger differentials in payment between Medicare and private payers, coupled with discontent about Medicare's level of payment, could compromise access to care. Although the Commission has found no evidence that the current gap is causing an access barrier, it is possible that a substantially larger gap could affect physicians' willingness to care for Medicare patients. The size of that gap is unclear (see Chapter 4).

CHALLENGES FOR THE FUTURE

Entering the second half of the 1990s, policymakers are looking toward new directions for the Medicare and Medicaid programs. In the short term, Medicare reforms may focus on enhancing program performance in the fee-for-service sector, which is still the predominant form of payment under the program and the option chosen by over 90 percent of beneficiaries. But over the longer term, the challenge will be to remake Medicare in the image of the evolving health care marketplace, capitalizing on innovative changes taking place in the private sector. Medicaid is already moving rapidly to enroll its beneficiaries in managed-care arrangements. Between June 1993 and June 1994, managed-care enrollment in the Medicaid program increased 57 percent, growing to 24 percent of beneficiaries (Lewin-VHI 1995).

As the health care system has moved toward managed care and integrated delivery systems, both the willingness of health maintenance organizations (HMOs) to participate in the Medicare program and beneficiary enrollment in these plans have increased. Currently about 9 percent of Medicare beneficiaries are enrolled in HMOs, up from 7 percent in 1993. Enrollment rates vary considerably across the country, with higher rates tending to occur where commercial HMO penetration is high. About 75 percent of Medicare HMO enrollees are in plans with risk contracts, which are paid on a per capita basis; the rest are in plans with cost contracts that are paid based on reasonable costs.

Further expansion of managed care within the Medicare program is now being debated in the Congress. Several proposals have been introduced; although these vary in design, all would create a system in which beneficiaries are offered a range of options with incentives to choose less expensive plans. The success of these proposals will depend upon the capacity of HMOs to accommodate elderly and disabled patients, plans' willingness to do business with the Medicare program, and beneficiaries' willingness to receive care under these arrangements.

HMO participation is perhaps most affected currently by the inadequacies of payment based on a percentage of expected fee-for-service payments per enrollee in a given geographic area (referred to as the adjusted average per capita cost or AAPCC). Problems include wide geographic variation in payment rates due to local variations in fee-for-service patterns of use; volatility of

county-level payment rates, particularly for those with small Medicare populations; and inability to adjust adequately for risk (meaning higher than average or lower than average use of services) across plans.

Addressing these issues should be viewed as a first step in expanding the role of managed care in Medicare (see Chapter 5). Building upon this foundation, additional managed-care choices could be expanded, including those that would create competition among both fee-for-service and managed care options.

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BENEFICIARIES AND THE MEDICARE FEE SCHEDULE

In establishing Medicare physician payment reform, the Omnibus Budget Reconciliation Act of 1989 (OBRA89) called for monitoring the effects of reform on Medicare beneficiaries. OBRA89 requires the Secretary of Health and Human Services to report to the Congress annually on changes in beneficiaries' use of services and access to care, as well as changes in beneficiaries' financial liabilities arising from this care. OBRA89 also directs the Commission to comment on the Secretary's reports and to offer recommendations to the Congress in these areas. Each year the Commission issues two reports that address these matters.

The Commission's most recent analyses have produced findings consistent with those in its prior reports. Access to care appears to be good for most Medicare beneficiaries as the Medicare Fee Schedule nears full implementation. The findings are subject to some important qualifications, however. Previous Commission reports have shown that vulnerable populations experiencing restricted access to care before reform was implemented, particularly African American beneficiaries and those in urban poverty areas and in urban Health Professional Shortage Areas, continue to have access problems (PPRC 1994a). These problems include low use of primary care services, high use of emergency rooms and hospital outpatient departments, and high mortality rates. There is no evidence that reform has improved access for these populations. Earlier Commission work has also shown that a beneficiary with a break in an existing physician relationship may have difficulty finding a provider who accepts new Medicare patients (PPRC 1994a). Beyond the findings reported here, the Commission is aware of anecdotal reports that some physicians have responded to Medicare payment rate reductions by limiting their delivery of services to beneficiaries. The range of access problems experienced by subgroups of Medicare beneficiaries suggests that a multipronged approach must be pursued to solve these problems.

RECOMMENDATION

Multiple approaches should be considered to maintain and expand service delivery for underserved Medicare beneficiaries. These approaches cover a broad range of policies. Among them are ensuring appropriate numbers and distribution of health professionals to serve these beneficiaries; paying providers, including qualified nonphysician health professionals, who care for these beneficiaries; and making certain that these beneficiaries have access to new health care delivery systems.

This chapter presents an overview of the Commission's most recent findings on changes in beneficiary access to care following introduction of the Medicare Fee Schedule. The chapter also summarizes changes in beneficiary financial liability since 1991. More detailed analyses of access and beneficiary financial liability will be presented in separate Commission reports, to be issued in mid-1995.

In brief, the Commission's findings on access presented in this chapter are as follows:

- Information from beneficiaries indicates that few have had trouble getting care and most are satisfied with the care they receive.
- Physician participation in Medicare continues to grow. Fully 93 percent of charges are now paid on assignment, continuing the growth trend of the past several years.
- Medicare claims data show no systematic drop in service volumes where Medicare payment levels have been reduced since 1991. Those declines in volume that were found appear to be related to changes in medical practice and technology, coverage, and procedure coding.

ANALYSIS OF ACCESS

In monitoring beneficiary access, the Commission has defined the term as the ability to obtain needed medical care. A number of access barriers have been discussed in the health care literature that may affect beneficiaries' ability to obtain needed services (Aday and Andersen 1981; IOM 1993). Some barriers to access, such as education, income, and language, are patient related. Others involve the structure and organization of the health care system, among them the number and distribution of providers, financing of care, and the availability of transportation. Although any of these barriers may influence beneficiary access, the particular focus of this section, which updates analyses of Medicare claims data and the Medicare Current Beneficiary Survey (MCBS), is changes in access related to implementation of the Medicare Fee Schedule.

An important limitation of the findings presented in this chapter concerns the difficulty of measuring access to needed services.¹ Ideally, the Commission would like to be able to measure beneficiary access to services needed to improve health outcomes. While it is not possible to distinguish between appropriate and inappropriate services when measuring access with currently available data, the Commission looks for evidence of potential access problems from multiple perspectives with the different types of data that are available. To the extent it finds such evidence, the Commission then judges whether Medicare beneficiaries appear to be experiencing decreased access to appropriate services and whether policy recommendations are warranted.

Analysis of Claims Data, 1991-1994

Claims data from the first six months of 1994 show no general decrease in beneficiary use of services between 1991 and 1994. Even though use of some individual services fell, a comparison of Medicare carrier areas, grouped by size of payment rate changes, fails to show a clear relationship between these changes and changes in service use. Furthermore, the Commission has found that changes in use of services must be interpreted carefully when assessing the relationship between service use and

¹ A more extensive discussion of measuring access to needed services appears in the Commission's 1994 report, *Monitoring Access of Medicare Beneficiaries* (PPRC 1994b).

access to care. Factors such as changes in technology, medical practice, or coverage of services often explain changes in service use that do not necessarily involve changes in access to care.

Methods

Medicare beneficiaries' service use during the first half of 1994 was compared with service use during the first six months of 1991.² Data consisted of all physicians' services claims for a 5 percent sample of beneficiaries. Claims were tabulated by the Medicare carrier area in which services were delivered, and all analysis was conducted by the location in which the service was delivered.³

Three factors add a measure of uncertainty to the data presented here. First, the procedure codes used for visits and consultations from 1992 through 1994 are completely different from those used in 1991. To analyze the data, the old codes were translated to the new ones using a crosswalk, or algorithm, developed by the Health Care Financing Administration (HCFA). Any inaccuracy in this translation adds a significant margin for error in the analysis of changes in visit services. Second, these files are incomplete. They include only those claims processed by September of each year, or three months beyond the half-years under study.⁴ Analysis of the distribution of claims per month shows, however, that the proportions of claims per month in 1994 are similar to those in the other years, suggesting that the files are about equally complete. Estimated growth in the use of services will reflect both the true change in use of services and any small variations in the completeness of the files, because of changes in claims processing.⁵ Finally, because a 5 percent sample of claims is used in the analysis, the payment rate and service use measures presented are subject to sampling error. These errors are likely to be greatest with respect to those procedures that are responsible for relatively small shares of outlays for physician services.

Two measures of service use were calculated. First, simple counts of services were tabulated. These counts do not reflect changes in the mix of services from, for example, less complicated to more complicated procedures. Second, an index of the total volume and intensity of care was created. To construct this index, counts of services are weighted in proportion to the payment rate for the service. For example, a \$1,000 cataract surgery would be weighted as heavily as 10 consultations costing \$100 each. This index captures changes in the count of services as well as changes in the mix, or intensity, of services.⁶

² The Commission is able to analyze 1994 claims for this report because of the National Claims History system developed by the Health Care Financing Administration. Through a significant effort on the part of HCFA Bureau of Data Management and Strategy staff, the Commission now receives a sample of half-year claims data in the fall of the same year in which the claims were submitted.

³ The location in which the service is delivered sometimes differs from the location in which the beneficiary lives because beneficiaries, particularly those in rural areas, sometimes travel some distance to see a physician.

⁴ This cutoff was necessary because the most recent 1994 data included only those claims processed through September 1994. The same cutoff was used with the 1991-1993 data to ensure comparability with the 1994 data.

⁵ A number of other factors also lead to some uncertainty, including changes in the global surgical service period and the bundling of certain services, such as electrocardiogram interpretation, into office visits.

⁶ Volume and intensity growth is measured by asking how much outlays would have risen if prices had been frozen. This is computed directly from data on individual services, calculating the total cost of 1994 services at 1991 prices, then comparing this to actual 1991 outlays.

In most cases, the volume and intensity index measures change more accurately than counts of services. Visit services are an important exception, however. Analysis of the volume and intensity of visits relies on a potentially inaccurate crosswalk of 1991 visit codes to codes used after 1991. The count of visits, by contrast, does not rely as heavily on the crosswalk. Since the crosswalk captures an entire class of codes, a count of services should provide a good indicator of changes in use of services.⁷ Changes in the intensity of visit services are not addressed by the simple counts, however.⁸

Table 1-1. Change in Payment and Use Per Beneficiary for Selected Services, 1991-1994

Type of Service	Annual Percentage Change			Percentage of 1994 Physicians' Services Outlays
	Payment Per Service	Volume ^a	Count of Services ^b	
All Services	0.4	3.8	3.5	100.0
Evaluation and Management	5.7	3.6	2.5	33.7
Primary care	5.9	2.4	2.2	21.9
Office and other outpatient	4.9	2.7	2.3	15.9
Emergency department	9.7	3.9	5.2	2.3
Nursing facility/rest home	11.2	4.4	5.5	1.7
Home	10.3	-6.1	-4.4	0.2
Other evaluation and management	5.3	6.0	3.2	11.9
Surgery	-2.9	3.1	6.7	28.0
Cataract lens replacement	-5.0	-2.2	-2.3	3.5
Joint prosthesis	-3.8	8.1	7.3	1.4
Coronary artery bypass graft	-4.8	6.0	8.8	1.2
Transurethral prostate surgery	-3.1	-10.1	-9.9	0.4
Open prostate surgery	-1.8	1.1	-0.5	0.1
Arthroscopy	-4.2	10.4	9.1	0.2
Other Nonsurgical	-1.1	4.4	3.4	38.2
Diagnostic radiology, other	-2.8	-3.8	0.2	3.3
Echocardiograms	-2.6	16.0	19.3	2.2
CAT scans	-3.0	2.2	4.7	1.6
Magnetic resonance imaging	0.9	8.6	11.9	1.0
Angioplasty	-9.0	16.2	17.1	0.6
Mammography, all	-1.0	-2.2	1.5	0.4

SOURCE: Physician Payment Review Commission analysis of 1991-1994 Medicare claims, 5 percent beneficiary file.

^a Measures change in outlays if prices were frozen (volume and intensity).

^b Measures change in the number of services only.

NOTE: Data are for the first six months of each year.

⁷ For office visits, for example, the accuracy of the volume and intensity index depends on each old code being accurately mapped to a new code. By contrast, a count of services will provide a good measure of physician contacts so long as all office visits under the old system are recorded as office visits under the new system.

⁸ See Chapter 2 for further discussion of changes in the intensity of visit services.

Results

Overall beneficiary use of physician services climbed from 1991 through 1994. Use of all services rose at an annual rate of 3.8 percent (Table 1-1).

Services with payment rate increases and those with decreases both were used more often (Table 1-1). Payment rates for evaluation and management services increased by 5.7 percent, while use of these services grew by 3.6 percent. For the two groups of services with payment rate decreases, surgical services and other nonsurgical services, use went up by 3.1 percent and 4.4 percent, respectively.

The use of some specific services fell, however. Cataract lens replacement, mammography, routine diagnostic radiology, home visits, and transurethral prostate surgery all had decreases in use ranging from 2.2 percent to 10.1 percent. As discussed in the Commission's 1994 access report, these decreases appear to be related to changes in factors such as coverage, medical practice, technology, or procedure coding and not necessarily to changes in access to care (PPRC 1994a).

The 3.8 percent growth rate in volume of all services for the three years ending in 1994 is lower than the trend seen before the Medicare Fee Schedule was introduced. The annual growth rate for the five years ending in 1991 was 7.1 percent (Board of Trustees 1994). Whether this relatively low growth in service volume represents a change in trend is unclear, however, because the rate has been quite volatile. In the 10 years ending in 1991, for instance, annual growth rates ranged from 3.7 percent to 10.0 percent (Board of Trustees 1994). The 1991 to 1994 growth rate is the lowest multiyear rate since the 1984 to 1985 period, when it was 3.9 percent.

To further analyze the relationship between payment rates and service use, changes in service use were analyzed by Medicare carrier area.⁹ The analysis was intended to show whether areas that experienced the largest payment rate reductions, or smallest payment rate increases, were also those with the biggest decreases, or smallest increases, in service use. For each group of services (and for total services), carriers were divided into three groups based on the size of the change in average payment rate per service between 1991 and 1994. Carrier areas, categorized by magnitude of payment rate changes, were then contrasted in terms of growth in volume and intensity of services and counts of services per beneficiary.

The carrier area comparison does not support the notion that payment rate reductions have begun to limit access to care (Tables 1-2 and 1-3). In some cases (e.g., arthroscopy), growth in service use was highest in those areas experiencing the greatest payment rate cuts. In other categories of service, no relationship between payment rate changes and changes in service use was discernible (e.g., joint prosthesis).

⁹ Carrier area boundaries typically correspond to state boundaries.

Table 1-2. Average Annual Change in Service Volume Per Beneficiary in Areas with Small and Large Payment Changes for Selected Services, 1991-1994 (percentage)

Type of Service	Largest Reduction or Smallest Increase	Mid-Range	Smallest Reduction or Largest Increase
All Services	6.0	3.0	3.0
Evaluation and Management	4.5	3.8	2.8
Primary care	4.0	2.4	1.4
Office and other outpatient	5.0	2.6	1.3
Emergency department	3.0	3.4	5.3
Nursing facility/rest home	8.8	2.4	2.8
Home	-8.1	-1.3	-9.9
Other evaluation and management	6.9	6.6	4.4
Surgery	5.5	2.2	1.8
Cataract lens replacement	-0.3	-1.6	-4.5
Joint prosthesis	6.4	4.2	14.4
Coronary artery bypass graft	8.2	5.1	4.5
Transurethral prostate surgery	-11.8	-13.1	-6.2
Open prostate surgery	2.9	-2.9	3.8
Arthroscopy	15.3	11.5	4.7
Other Nonsurgical	7.1	5.1	1.3
Diagnostic radiology, other	-3.2	-3.9	-4.3
Echocardiograms	14.3	14.9	19.0
CAT scans	2.1	1.8	2.5
Magnetic resonance imaging	9.1	7.7	8.8
Angioplasty	13.3	17.4	18.7
Mammography, all	-0.8	-2.4	-3.1

SOURCE: Physician Payment Review Commission analysis of 1991-1994 Medicare claims, 5 percent beneficiary file.

NOTES: Data are for the first six months of each year.

Payment changes and areas were calculated separately for each type of service.

Service volume measures change in outlays if prices were frozen (volume and intensity).

Analysis of Medicare Current Beneficiary Survey

Each year, the Commission uses the Medicare Current Beneficiary Survey to complement its analyses based on Medicare claims. This longitudinal survey provides information on specific aspects of beneficiary access to care, such as reasons for difficulty in finding a physician, whether care was delayed for financial reasons, availability of a usual source of care, and satisfaction with care. This important data source, therefore, provides useful contextual information that supports analyses of utilization patterns.

This section describes the MCBS and presents analyses of responses beneficiaries gave to some of the questions. Additional analyses, building on last year's work on vulnerable populations, will be prepared for the Commission's access report.

Table 1-3. Average Annual Change in Service Counts Per Beneficiary in Areas with Small and Large Payment Changes for Selected Services, 1991-1994 (percentage)

Type of Service	Largest Reduction or Smallest Increase	Mid-Range	Smallest Reduction or Largest Increase
All Services	6.2	3.0	2.3
Evaluation and Management	3.0	2.7	2.0
Primary care	3.0	2.3	1.8
Office and other outpatient	3.4	2.3	1.6
Emergency department	3.4	5.1	6.4
Nursing facility/rest home	8.6	4.9	4.3
Home	-6.5	1.1	-8.3
Other evaluation and management	4.2	4.0	1.6
Surgery	13.5	3.6	3.9
Cataract lens replacement	-0.5	-1.6	-4.5
Joint prosthesis	5.4	3.8	12.7
Coronary artery bypass graft	10.7	7.8	7.8
Transurethral prostate surgery	-11.6	-12.9	-6.0
Open prostate surgery	1.8	-4.1	1.8
Arthroscopy	15.0	8.9	4.6
Other Nonsurgical	4.5	4.7	1.3
Diagnostic radiology, other	0.6	0.2	-0.1
Echocardiograms	18.4	17.7	22.5
CAT scans	5.0	3.9	5.0
Magnetic resonance imaging	10.3	12.1	13.4
Angioplasty	12.6	18.6	19.8
Mammography, all	2.3	1.3	1.0

SOURCE: Physician Payment Review Commission analysis of 1991-1994 Medicare claims, 5 percent beneficiary file.

NOTES: Data are for the first six months of each year.

Payment changes and areas were calculated separately for each type of service.

Service counts measures growth in the number of services only.

Description of the Survey. The MCBS, which began in 1991, is a longitudinal survey of about 12,000 Medicare beneficiaries. The core survey and its supplements, sponsored by HCFA's Office of the Actuary, include information on utilization of services, expenditures, health insurance coverage, access to health care services, satisfaction with care, health status, and physical functioning, as well as demographic information.

The MCBS sample was constructed to be representative of the Medicare population as a whole. The oldest-old (over 85) and the disabled under 65 were oversampled because the sample size would otherwise be too small to draw policy and research conclusions about these populations. Additional beneficiaries are added each year to replace those no longer in the sample because of death, emigration, or refusal to participate. These supplemental samples include both newly and previously enrolled Medicare

beneficiaries. Of those beneficiaries interviewed in the original 1991 survey, 82 percent completed it in 1992 and 73 percent completed it in 1993. Using the 1992 sample, which includes some participants from the original survey and some from the supplement, one can make an additional longitudinal comparison. Of those interviewed for the 1992 survey, 88 percent participated again in 1993.¹⁰

Access to Care, Satisfaction, and Quality of Care. Beneficiaries were asked directly and indirectly about their access to care. Questions such as whether the respondent had ever had a medical problem but did not see a physician and whether the beneficiary had a particular physician or physician's office as his or her usual source of care are considered direct measures of access. In instances where beneficiaries had problems with access to care, reasons for these problems were elicited.

Patient satisfaction and perceptions about quality are considered indirect indicators of access. It is assumed that when barriers to care exist, beneficiaries will express dissatisfaction with the care provided. Indirect measures considered here include satisfaction with the availability of care on nights and weekends, beneficiaries' confidence in their physicians, and perceptions about the quality of care.

Analyses of the 1993 survey show that measures of access to care are essentially unchanged from 1991 and 1992, and that access for most beneficiaries remains excellent. About 87 percent identified a physician's office as their usual source of care or, if they obtained care in another setting, saw a particular physician (Table 1-4). Among those without a usual source of care, most saw no need since they were seldom or never sick. Furthermore, 97 percent reported no trouble getting care during the past year. Among those reporting trouble, cost and transportation were the most commonly cited problems.

Table 1-4. Medicare Beneficiaries Reporting Acceptable Access to Care, 1993 (percentage)

Access Question	Beneficiaries with Positive Response
Access to Care	
Usual source of care in office or with particular physician	87
No delayed care due to cost during past year	90
No trouble getting care during past year	97
Satisfaction with Care	
Satisfied with availability of care at night and on weekends	93
Satisfied with ease of getting to physician	94
Satisfied with out-of-pocket costs paid for medical care	82
Has great confidence in physician(s)	94

SOURCE: Physician Payment Review Commission analysis of the 1993 Medicare Current Beneficiary Survey data.

NOTE: This analysis excludes institutionalized beneficiaries.

¹⁰ About 8 percent of the MCBS sample was institutionalized at the time of the survey. Since responses to some questions are not available for these beneficiaries, they were excluded from the analysis.

Satisfaction with care also remained high. At least 93 percent had great confidence in their physician, and were satisfied with the availability of care at night and on weekends as well as with the ease of getting to a physician. Although satisfaction with out-of-pocket costs was lower than that with access and quality, it was still fairly high at 82 percent (Table 1-4). Only 0.3 percent of beneficiaries reported having problems getting care because the physician would not accept Medicare patients.

FINANCIAL LIABILITY OF MEDICARE BENEFICIARIES

One of the key considerations of Medicare physician payment reform was to ensure that beneficiaries were protected from large out-of-pocket expenses that could become a barrier to access to physicians' services. To reach this objective, OBRA89 specified limits on the amount that physicians can charge above the Medicare payment rate. Complementing these charge limits, the Participating Physician and Supplier (PAR) program provides incentives for physicians to accept the Medicare payment rate as full compensation (known as accepting assignment) on all claims for a given year.¹¹ Also, as reported in the MCBS, 90 percent of beneficiaries have additional insurance coverage, which reduces or eliminates out-of-pocket expenses (Table 1-5). About 13 percent are dually eligible for both Medicare and Medicaid, and a full 77 percent have some form of private insurance.

The Commission has been actively monitoring the extent to which these policies are serving to limit the financial liability of beneficiaries. It annually submits a separate report to the Congress on this subject. Over the first few years of program implementation, results generally have been consistent with proposed intentions of the reform, as both the incidence and level of charges above the Medicare payment rate have decreased (PPRC 1994b). The proportion of physicians enrolled in the PAR program has increased steadily to 65 percent in 1994. Preliminary results from analysis of claims data

Table 1-5. Additional Insurance Arrangements Held by Medicare Beneficiaries, 1993 (percentage)

Additional Insurance Arrangement Question	Beneficiaries with Positive Response
No Additional Insurance	10
Medicaid	13
Private Insurance	77
Other Insurance	7

SOURCE: Physician Payment Review Commission analysis of the 1993 Medicare Current Beneficiary Survey data.

NOTES: Percentages sum to more than 100 because some beneficiaries have more than one additional insurance arrangement.

This analysis excludes institutionalized beneficiaries and beneficiaries who were members of a group health plan at any time during the year.

¹¹ Participating physicians are paid Medicare Fee Schedule payment rates; nonparticipating physicians are paid 95 percent of those rates. In addition, the names of participating physicians are listed in a published directory made available to beneficiaries.

indicate that, in 1994, services provided by participating physicians accounted for 86 percent of Medicare charges. Additionally, about 93 percent of charges were submitted on assignment in 1994.

As a consequence of the charge limits on unassigned claims, the amounts charged above the Medicare payment have decreased substantially, on average.¹² Preliminary analysis of 1994 claims data indicates that some charges above the prescribed limit persist, however. While OBRA89 specified a 115 percent charge limit, charges submitted by physicians on unassigned claims averaged 117 percent of the Medicare-approved payment in 1994. HCFA has been notifying both physicians and beneficiaries of excessive charges, but clear enforcement authority was only recently implemented through the Social Security Act Amendments of 1994 (P.L. 103-432). By requiring Medicare carriers to screen all unassigned claims before payment and also granting authority to the Secretary to apply sanctions when necessary, this law is expected to provide the tools necessary to reduce the incidence of charges above the limit in the future.

THE COMMISSION'S PLANS FOR FURTHER WORK ON ACCESS TO CARE AND BENEFICIARY FINANCIAL LIABILITY

Analyses of claims and survey data two to three years after the implementation of the Medicare Fee Schedule show no clear relationship between the payment rate changes accompanying use of the fee schedule and changes in access to physician services for Medicare beneficiaries. While these early indications are reassuring, continued monitoring of access remains important. Payment reform may have effects that are not apparent initially. The Commission's ongoing analyses of available data include a special emphasis on the experience of vulnerable populations. Among these groups are the oldest-old groups (those over 85), African Americans, and beneficiaries living in urban and rural poverty areas. These analyses will be the subject of the Commission's next report on beneficiary access, scheduled for mid-1995.

The Commission's plans for further analyses of beneficiary access address a number of issues. One analysis of Medicare claims will focus on the demographic characteristics of the beneficiary population. This analysis can show whether vulnerable populations with a history of poor access have lost ground during implementation of the fee schedule.

An additional analysis of Medicare claims will include use of a set of clinically based indicators of access developed by RAND under contract with the Commission. These indicators are tailored to the diseases and conditions like hypertension, cancer, and stroke, which are most common among the elderly. Each indicator is designed to measure whether individuals with these diseases obtained the appropriate treatment for their problems. The indicators will be used to track changes in beneficiary access over time and across various vulnerable subgroups of the beneficiary population.

¹² The charge limits are 115 percent of nonparticipating physician payment rates, or 109.25 percent (115 percent of 95 percent) of Medicare Fee Schedule payment rates.

The Commission will also extend its analyses of the MCBS. This work will include consideration of the size of payment rate changes in areas where survey participants receive care. The analyses will also incorporate beneficiary demographic information collected during the survey. Such information will be used to compare vulnerable populations' access to care with that of other beneficiaries.

Additionally, the Commission plans to use the National Claims History Physician Sample File to measure the willingness of physicians to serve Medicare beneficiaries. This database contains information from all Medicare claims submitted by a sample of Medicare physicians in each state. By contrasting, for example, the number of patients served by each physician from 1991 through 1993, the Commission will gain insight into changes in the willingness of physicians to provide services to beneficiaries. The physician sample file also permits the Commission to examine changes in Medicare patient concentration among subsets of physicians over time. Concentration of patients among fewer physicians could be an indicator of limited beneficiary choice.

Finally, further analyses of the impact of Medicare payment policies on beneficiaries' financial liability through 1994 will be included in a forthcoming report to be submitted to the Congress in the spring. This report will examine billing patterns across various geographic areas, physician specialties, and types of services. It will also investigate how Medicare payment policies affect beneficiaries' out-of-pocket expenditures, with particular attention to vulnerable populations of beneficiaries. In addition, information available from the MCBS may allow the Commission to explore beneficiaries' liability for some medical costs other than those for physicians' services.

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PHYSICIAN PAYMENT UNDER THE MEDICARE FEE SCHEDULE

The Medicare Fee Schedule, adopted in 1992 by Medicare to pay for physicians' services, will be fully in place by 1996. By that time, various aspects of the fee schedule and related payment policies will have undergone many changes. Some of these will significantly affect payment levels for specific services, as well as payment distribution across specialties and geographic areas. The Commission has long supported many of these policies, including creation of resource-based relative values for the practice expense component of the fee schedule. Other policies may undermine some payment reform goals, such as the continued use of three different conversion factors for primary care, surgical, and all other services.¹ These have been the subject of previous Commission recommendations for further improving Medicare physician payment policy.

RECOMMENDATIONS

Several modifications that require legislative changes will improve payment policy under the Medicare Fee Schedule:

- **A transition period should be defined for the introduction of resource-based practice expense relative values.**
- **Malpractice expense relative values should also be resource based.**
- **The Health Care Financing Administration should be authorized to achieve budget neutrality or implement legislative directives for savings through the conversion factors rather than through across-the-board changes to relative values.**

In addition, service-level site-of-service differentials should be developed as part of resource-based practice expense relative values, a policy that the Health Care Financing Administration can implement with existing authority.

The Commission has developed the following principles after reviewing the implications of policy changes and implementation strategies since the fee schedule was introduced:

¹ Conversion factors translate relative value units into dollar amounts for physician payments. The continued use of three conversion factors is part of the Volume Performance Standards system, which is discussed in detail in Chapter 3. Specific recommendations for changing these policies are included in that chapter.

- The relative value scale (RVS) should be usable by all payers.
- Changes in relative values for services should be made only to make payment more resource based.
- The relationship among the three components of the relative value scale should be based on accurate information about their size relative to one another.

Together, these principles—which are discussed in more detail in this chapter—form a framework for guiding Medicare payment policy changes used in the Commission’s analyses of fee schedule policy issues.

The first section includes two analyses of how the fee schedule has affected payments to physicians. The Commission’s analysis of actual payments to physicians since implementation of the fee schedule, which blend fee schedule-based and historical charge-based payments, is presented first. Simulations of payments under the 1992 and 1995 fee schedules and an analysis of how policy changes during that period affected fee schedule payments follow. The second section describes the major physician payment policy developments of 1994 and the Commission’s continuing concerns about some elements of fee schedule payment policy.

DISTRIBUTION OF PHYSICIAN PAYMENTS SINCE FEE SCHEDULE INTRODUCTION

The Medicare Fee Schedule was designed to rationalize the basis of physician payments. It includes three components that reflect the relative amounts of physician work, practice expenses, and malpractice expenses required to provide individual services. Each of these relative value scales is adjusted for variation in input prices across payment areas through geographic practice cost indexes (GPCIs). Finally, these adjusted values are converted to dollar payment amounts by one of three conversion factors. There are three conversion factors, one each for surgical, primary care, and all other services.² Because fee schedule payments are dramatically different from those under the previous charge-based system for some services, the fee schedule has been phased in over five years. By 1996, all payments will be based on the fee schedule.

The fee schedule is expected to redistribute payments across services and geographic areas. In general, payment rates have increased for evaluation and management (EM) services and for services delivered in rural areas. This section analyzes fee schedule payment from two perspectives. First, actual payments during the first two years under the new payment policies are analyzed by physician specialty, type of service, and location. Second, changes within the fee schedule itself are assessed to isolate the effect of policy changes on relative payments.

² These categories are based on the type of service rather than the specialty of the physician. For example, an office visit provided by a surgeon falls under the primary care category.

Actual Payments, 1991 to 1993

Between 1991 and 1993, payments were being moved gradually from their historical charge basis toward the fee schedule. Changes in total Medicare payments over time are the result of changes in both service-level payment rates and the mix of services provided. With the implementation of the Unique Provider Identification Number (UPIN) in 1991, it is now possible to analyze the impact of payment changes on specific physicians with data from the National Claims History Physician Sample File.

Since the speed and completeness of Medicare carriers reporting UPINs on claims varies widely, only data from carriers with a UPIN reporting rate of 90 percent or higher from 1991 through 1993 were included in this analysis. The states served by the resulting 26 carriers are not representative of the entire United States, with the Northeast, upper Midwest, and West Coast underrepresented.³ Nevertheless, some insight into the impact of introduction of the Medicare Fee Schedule on actual payments is possible.⁴ During this period, actual payments were a blend of previous payment amounts and the new fee schedule amounts.

From 1991 to 1993, payments per service declined at an average annual rate of 1.1 percent (Table 2-1). Surgeons experienced some of the largest decreases, with payment rates falling by 3.7 percent.⁵ Payment rates for physicians in specialties other than medical and surgical specialties dropped by 2.3 percent. While physicians generally experienced payment rate decreases, some specialties had payment increases. Payment rates for physicians in medical specialties climbed an average of 1.2 percent.

These differences in changes in payment rates by specialty are the result of the mix of services provided by physicians in the different specialties. As expected, specialties with larger shares of payments for primary care services had an increase in their overall payment rates. For example, about 29 percent of total Medicare charges by physicians in medical specialties are for primary care services, while this service group accounts for about 14 percent of surgeons' case mix (Table 2-1). This difference in case mix results in the different changes in payment per service reported above.

The total Medicare payment a physician receives depends not only on the payment per service but also on the number and intensity of services billed. Although physicians had a 1.1 percent decrease in

³ The states included in this analysis are: Alabama, Arizona, Arkansas, Connecticut, Florida, Hawaii, Idaho, Indiana, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah, and Virginia.

⁴ The results reported here differ from those in last year's annual report for two reasons. First, use of the physician sample file allows more accurate calculation of per physician changes with a single data source. Last year's analysis combined a sample of beneficiary claims with counts of physicians from other sources. Second, this year's analysis is based on data from a limited set of states due to incompleteness of UPIN reporting. Last year's analysis was based on a national sample of beneficiary claims.

⁵ To insulate the analysis from changes in specialty codes introduced in 1992, the new codes were translated back to the codes used in 1991. To further limit the influence of changes in specialty assignment, each physician was assigned to the single specialty with the largest share of his or her allowed charges over the 3 years of the analysis.

Table 2-1. Average Annual Change in Medicare Payment and Volume, by Type of Specialty and Service, 1991-1993 (percentage change)

Specialty	Medicare Payment Per Service	Volume and Intensity Per Physician	Medicare Payment Per Physician ^a	Percentage of 1993 Medicare Payments
All	-1.1	3.2	2.1	100.0
Evaluation and management				
Primary care	5.9	0.7	6.6	21.3
Other	5.9	7.0	13.4	15.7
Surgical	-5.9	-0.1	-6.0	29.3
Other nonsurgical	-3.3	5.9	2.4	33.7
Medical	1.2	4.4	5.6	100.0
Evaluation and management				
Primary care	5.7	2.0	7.8	29.0
Other	6.0	6.8	13.2	25.4
Surgical	b	b	b	6.9
Other nonsurgical	-3.5	5.4	1.8	38.7
Surgical				
All services	-3.7	1.5	-2.2	100.0
Evaluation and management				
Primary care	6.3	-3.8	2.2	14.1
Other	b	b	b	5.2
Surgical	-6.2	0.6	-5.7	69.3
Other nonsurgical	-1.4	10.1	8.5	11.4
Other				
All services	-2.3	4.8	2.4	100.0
Evaluation and management				
Primary care	b	b	b	9.1
Other	b	b	b	3.3
Surgical	-0.3	9.0	8.7	12.0
Other nonsurgical	-3.8	3.5	-0.5	75.6

SOURCE: Physician Payment Review Commission analysis of 1991-1993 Medicare claims, 5 percent sample of physicians.

^a Medicare payments are allowed charges.

^b Sample too small to permit meaningful estimates.

payment per service overall, a 3.2 percent increase in the volume and intensity of services per physician led to a 2.1 percent annual rise in payment per physician (Table 2-1).

As expected, payment rate changes varied by type of geographic area (Table 2-2).⁶ Whereas medical specialties overall had a payment rate increase of 1.2 percent, changes in payments ranged from no change in urban areas to a 5.4 percent increase in rural areas.

⁶ Results by geographic area differ slightly from other results because geographic identifier information was not available for all physicians. Since most of the physicians without geographic identifiers were in specialties other than medical and surgical specialties, physicians in these other specialties were excluded from the geographic area analysis.

Table 2-2. Average Annual Change in Medicare Payment and Volume, by Type of Specialty and Location, 1991-1993 (percentage change)

Specialty	Medicare Payment Per Service	Volume and Intensity Per Physician	Medicare Payment Per Physician*	Percentage of 1993 Medicare Payments
All	-0.9	3.0	2.0	100.0
Metropolitan areas	-1.8	3.8	2.0	78.2
Rural counties	2.2	0.0	2.2	21.8
Medical				
All locations	1.2	4.3	5.6	100.0
Metropolitan areas	0.0	5.6	5.6	77.1
Rural counties	5.4	0.3	5.7	22.9
Surgical				
All locations	-3.7	1.3	-2.4	100.0
Metropolitan areas	-4.0	1.6	-2.4	79.8
Rural counties	-2.3	0.2	-2.2	20.2

SOURCE: Physician Payment Review Commission analysis of 1991-1993 Medicare claims, 5 percent sample of physicians.

* Medicare payments are allowed charges.

Surgeons in urban areas experienced the greatest decreases, with payment rates falling by 4.0 percent on average (Table 2-2). Surgeons in rural areas saw a smaller average decrease of 2.3 percent.

Simulated Fee Schedule Payments, 1992 and 1995

The payment changes described above are due primarily to the transition from historical payments based on charges to the resource-based fee schedule. During the transition to the fee schedule, actual payments are a blend of historical rates and fee schedule amounts. As a greater proportion of payments is based on the fee schedule, payments will move toward primary care services and away from tests and procedures.

Some payment changes, however, are due to changes in the fee schedule itself. This section isolates the effect of four significant policy changes—refinement of relative work values, implementation of reductions to practice expense relative values under the Omnibus Budget Reconciliation Act of 1993 (OBRA93), changes in the geographic factors, and the use of three separate update factors—on payments under a fully implemented fee schedule, taking volumes as fixed at their 1992 levels.⁷

The net effect of all of these policy changes differs significantly across services and specialties. Across service groups, fee schedule changes between 1992 and 1995 have led to a relative gain of 5 percent for surgical

⁷ Volumes are held constant at 1992 levels for all calculations in this section. Estimates are therefore of the impact of price changes on total payment shares. Actual payments under the fee schedule will reflect volume changes since 1992, so will not necessarily match those reported.

services, compared with a 4 percent relative loss for nonprimary care evaluation and management services (Table 2-3). These changes have had virtually no effects across geographic categories, but have had a substantial effect on payments across physician specialties. For example, relative payments to most medical specialties are lower under the 1995 fee schedule than under the 1992 policies, with gastroenterologists losing 4.5 percent relative to others. Surgical specialties, particularly dermatology and thoracic surgeons, have enjoyed relative gains of nearly 10 percent and 9 percent, respectively, under the policy changes.⁸

Table 2-3. Payment Shares Under the Medicare Fee Schedule in 1992 and 1995 for Selected Types of Service, Locations and Specialties (percentage)

Type of Service, Location, and Specialty	Share of Payments*		Change in Share 1992-1995
	1992	1995	
Type of Service			
Evaluation and management			
Primary care	23.08	23.69	2.64
Other	21.27	20.39	-4.14
Surgical	23.96	25.18	5.09
Other	31.69	30.74	-3.00
Location			
Metropolitan areas			
> 3 million	26.01	26.08	0.27
1-3 million	26.75	26.75	0.00
Other	34.12	34.08	-0.12
Rural counties			
> 25,000	10.29	10.26	-0.29
< 25,000	2.82	2.82	0.00
Specialty			
Cardiology	6.92	6.75	-2.46
Family/general practice	10.29	10.33	0.39
Gastroenterology	2.88	2.75	-4.51
Internal medicine	15.38	15.21	-1.11
Other medical	7.90	7.80	-1.27
General surgery	5.18	5.47	5.60
Dermatology	2.12	2.33	9.91
Ophthalmology	10.38	10.02	-3.47
Orthopedic surgery	4.97	5.02	1.01
Thoracic surgery	1.84	2.00	8.70
Urology	3.39	3.56	5.01
Other surgical	3.41	3.52	3.23
Pathology	1.30	1.28	-1.54
Radiology	9.02	8.63	-4.32
Other	15.03	15.31	1.86

SOURCE: Physician Payment Review Commission simulations using 1992 Medicare claims, 5 percent sample of beneficiaries.

* Total payments are based on fully implemented fee schedule and 1992 service volumes.

⁸ Although dermatology is often classified as a medical specialty, it is classified as a surgical specialty by the Health Care Financing Administration because the mix of services provided by dermatologists to Medicare beneficiaries includes a large share of surgical services.

The four principal changes—refinement of work values, changes in practice expense relative values, new geographic adjustment factors (GAFs), and three updates—have contributed differently to these net changes.⁹ To calculate the relative effect of each, estimates were made of payment amounts that would have occurred if all 1992 fee schedule elements were unchanged except each of these four in turn. If, for example, the 1995 work relative values were used with all other 1992 fee schedule elements, radiologists would have experienced a relative loss of 1.6 percent (Table 2-4). Across service types and specialties, changes in relative work values led to minimal relative payment changes of about 0.6 percent in size, on average. Changes in practice expense relative values have had almost three times the effect on relative payments across services and specialties, with a mean absolute change of nearly 2 percent across specialties. Relative payments to surgical specialists were more affected by this policy than those to medical and other specialists. The GAF changes had virtually no effect on relative payments. The use of three conversion factors, however, had a notable effect.

Volume Performance Standards (VPS) policies have been responsible for most of the difference between 1992 and 1995 relative fee schedule amounts, contributing a mean absolute change of nearly 5 percent across service types (Table 2-4). The effect across geographic areas is minimal, and the results by specialty show a relative change of over 3 percent, on average. VPS policies have consistently led to relative reductions in payment for medical and other nonsurgical specialties, while all surgical specialties have experienced relative gains.

Payment policy changes have dampened the effect of fee schedule introduction, so that the relative payment changes reported in the previous section are smaller than anticipated when reform was first implemented. These results suggest that, within the context of fee schedule policy refinement, VPS policy has had the largest effect on relative payment changes. The direction of these changes is somewhat counter to the changes anticipated when the fee schedule was put in place. Their size suggests that, over time, the continued use of three updates will dramatically affect relative payment levels and will move them farther from their resource basis as reflected in the fee schedule.¹⁰

PHYSICIAN PAYMENT POLICY DEVELOPMENTS OF 1994

There were four important developments with regard to relative values and geographic issues in 1994. First, as a result of technical amendments to the Social Security Act passed in 1994, practice expense relative values in the Medicare Fee Schedule will be revised. These amendments mandated that the Health Care Financing Administration (HCFA) develop resource-based relative values for implementation in 1998. Second, HCFA also devised an approach for the first five-year review of the relative value scale, as required by OBRA89. In addition, the agency updated the GAFs. Finally, it has

⁹ The most important change in practice expense relative values is the OBRA93 reduction for overvalued services. There are, however, changes due to other factors, such as changes in the list of services affected by the site-of-service reduction.

¹⁰ The long-run implications of current VPS policies are described in Chapter 3.

Table 2-4. Effect of Policy Changes Since 1992 on Relative Fee Schedule Payments (percentage change)

Type of Service, Location, and Specialty	Physician Work ^a	Practice Expense ^b	Geographic Adjustment Factor ^c	Conversion Factor ^d
Type of Service				
Evaluation and management				
Primary care	0.35	1.65	0.00	0.56
Other	-1.27	1.36	0.00	-4.33
Surgical	0.04	-3.42	-0.04	9.06
Other	0.60	0.50	0.03	-4.35
Mean absolute change	0.55	1.65	0.02	4.60
Location				
Metropolitan areas				
> 3 million	0.23	0.12	0.31	-0.35
1-3 million	0.07	-0.07	-0.07	0.07
other	-0.12	-0.06	-0.06	0.18
Rural counties				
> 25,000	-0.29	-0.10	-0.19	0.29
< 25,000	0.00	1.06	-0.35	-0.35
Mean absolute change	0.15	0.11	0.15	0.21
Specialty				
Cardiology	1.16	-0.72	0.00	-3.18
Family/general practice	-0.19	1.55	-0.10	-0.87
Gastroenterology	0.00	-1.04	0.35	-3.12
Internal medicine	-0.13	1.11	0.00	-2.28
Other medical	1.01	1.27	0.13	-3.67
General surgery	0.39	0.77	0.00	4.25
Dermatology	0.47	3.30	0.00	5.66
Ophthalmology	0.10	-7.32	0.00	4.53
Orthopedic surgery	-1.01	-2.82	0.00	5.43
Thoracic surgery	1.09	1.09	0.00	6.52
Urology	-1.47	1.47	0.00	5.31
Other surgical	-0.59	-0.29	0.00	4.40
Pathology	0.77	0.77	0.00	-4.62
Radiology	-1.55	1.33	0.00	-4.21
Other	0.47	1.60	0.00	-0.40
Mean absolute change	0.60	1.97	0.03	3.07

SOURCE: Physician Payment Review Commission simulations using 1992 Medicare claims, 5 percent sample of beneficiaries.

^a Compares 1992 fee schedule payments with those that would result if 1992 physician work values were replaced with those of 1995.

^b Compares 1992 fee schedule payments with those would result if 1992 practice expense relative values were replaced with those of 1995.

^c Compares 1992 fee schedule payments with those would result if 1992 GAFs were replaced with those of 1995.

^d Compares 1992 fee schedule payments with those would result if 1992 conversion factors were replaced with those of 1995.

also undertaken an analysis of fee schedule payment areas and may, depending on the results, propose redefinition of the payment areas in the next few years. This section describes each of these developments and discusses several of the Commission's previous recommendations that would make payment policies more consistent with their initial intent.

Resource-Based Practice Expense and Malpractice Expense Relative Values

Since the fee schedule was first described in OBRA89, the Commission has been concerned about the continued use of charges as the basis for practice expense and malpractice expense relative values. At the Congress's request, the Commission developed a resource-based approach for each that is more consistent with the goals and intent of the fee schedule. This section summarizes developments in these areas and describes outstanding issues with regard to each of these charge-based components of the fee schedule.

Practice Expense Relative Values. Technical amendments to the Social Security Act passed in 1994 included provisions mandating development and implementation of resource-based practice expense relative values as part of the Medicare Fee Schedule. These amendments require the Secretary of Health and Human Services to develop a methodology to estimate the relative amounts of staff, equipment, and supplies necessary to provide medical and surgical services in a variety of settings and to report to the Congress by June 30, 1996 on the proposed methodology. The current charge-based method of determining practice expense relative values is repealed as of 1998, when the new approach presumably will be implemented. These changes are consistent with a previous recommendation made by the Commission.

In December 1994, HCFA released a request for proposals (RFP) to develop the database necessary to calculate resource-based practice expense relative values. HCFA wants to explore a variety of approaches to creating practice expense relative values and so has asked for proposals to develop a comprehensive database that would support exploration of several methods. The RFP suggests that, at least for the calculation of the initial values, a microcosting or accounting approach would most likely be used. Consistent with the Commission's earlier research and recommendations, this change addresses a key concern about payment equity under the fee schedule.

The Commission's research suggests that, when introduced in a budget-neutral manner, resource-based practice expense relative values may significantly affect payments for specific services and across specialties.¹¹ It is thus concerned that the new legislation makes no provision for gradually introducing the new values over a few years. Depending on the size of the reallocations that are expected once new values are established, it may be important to define a phase-in period to avoid large payment changes. There is clearly precedent for such an approach, with the five-year transition to the fee schedule and the two-year period required for implementing changes to

¹¹ Based on the Commission's analysis of limited data on practice expenses, resource-based practice expense relative values could redistribute about 26 percent of practice expense payments, or about 11 percent of total payments (PPRC 1992a).

the GAFs. Therefore, the Commission recommends that the Congress create a transition period of at least three years for introducing the new practice expense relative values.¹²

Typically, there are costs associated with such a transition, because interim payments seem unpredictable. Unlike the fee schedule transition during which payments have been a blend of fee schedule amounts and historical payments, the transition in this case could be defined as a simple progression from current practice expense relative values to the new resource-based values, where one-third of the difference is added (or subtracted) in each of three years. While there may still be the perception of constant change and unpredictability, the values themselves would be easily calculated and could be published prospectively for the entire transition period.

In the original fee schedule final rules, HCFA introduced a site-of-service adjustment for the practice expense component of the fee schedule (HCFA 1991). The current policy is to reduce the practice expense relative value by 50 percent for about 300 services that typically are provided in a physician's office when they are furnished in hospital outpatient or inpatient settings.

Site-of-service differentials are appropriate because physicians' expenses vary, depending on where services are delivered. When Medicare pays institutions separately for personnel, equipment, and supplies used by physicians, payments to physicians should be lower than when these resources are provided by physicians themselves during office-based care. If Medicare does not reduce the physician payment when it makes a separate facility payment, the program is essentially paying twice for many expenses.

The legislation calling for the introduction of resource-based practice expense relative values does not explicitly describe the creation of site-specific payment amounts, although it does call for collecting data on costs in different settings. The Commission encourages HCFA to use these data to develop service-specific site differentials because it is concerned that HCFA's current site-of-service adjustment is arbitrary both in terms of the list of services to which it applies and the amount of the differential. The list of affected services has changed dramatically since 1992. Although it typically includes between 300 and 350 services in any given year, 630 services have been on the list at some point in the past four years (HCFA 1991, 1992, 1993, 1994b). In addition, the Commission's research suggests that the difference in costs across settings varies by service, so that the use of a fixed percentage reduction for all services results in overadjustment for some services and underadjustment for others (PPRC 1992a). The development of resource-based relative values is an opportunity for creating service-specific payment differences that more accurately reflect the differences in physicians' practice resource requirements when providing particular services in different settings.

Malpractice Expense Relative Values. The Commission also has recommended revising the malpractice component of the fee schedule so that it is resource based (PPRC 1993). Although its

¹² If the resource-based relative values are similar to current charge-based values—with, for example, no service having a payment change exceeding 10 percent—then a transition would be unnecessary. Because of the short time frame between initiation of HCFA's research and implementation in 1998, however, it would be impossible to wait until the new values are available before determining whether a transition is needed and then passing the necessary legislation. Because the Commission's research suggests there will indeed be some large payment changes, it recommends that the Congress instruct HCFA to plan for a transition period, which can be shortened later if appropriate.

effect on payments is far more limited, the continued use of charge-based relative values for this fee schedule component is inconsistent with the notion of resource-based relative values.¹³ The Congress should modify current policy, replacing the current charge-based relative values with ones that reflect the relative malpractice costs of services.

Legislation calling for resource-based malpractice expense relative values should direct HCFA to develop a method prior to a specified implementation date. The agency could build on the Commission's recommended risk-of-service approach, which reflects some basic characteristics of the professional liability insurance (PLI) market.¹⁴ Professional liability insurers generally base premiums on the risk classification of each physician. Risk classes are typically defined with regard to physician specialty and mix of services provided. Many services, such as those for evaluation and management, are provided by physicians in different risk classes. Conversely, other services are associated with different levels of exposure to malpractice risk and, therefore, with different PLI premiums. A resource-based approach should assign higher malpractice relative values to those services that result in higher premiums for physicians. Under the risk-of-service method, malpractice relative values are proportional to each service's relative premium, defined as the service's contribution to the physician's malpractice premium.

The risk-of-service method can be modified to reflect new information about other resource costs related to professional liability, such as the nonpremium costs of being sued and changing sources of malpractice claims. Recent analysis by Brennan and his colleagues (1993) suggests there are nonpremium costs associated with the risk of incurring a malpractice claim. Although such costs are likely to be correlated with relative premiums, they might be appropriately included in service-level relative values if not. Similarly, premiums are likely to reflect the increased number of malpractice cases that are based on failure to diagnose. If such suits are more common or more costly for certain types of physicians, then relative premiums across premium classes will reflect these new types of claims. HCFA can build from the risk-of-service approach to develop relative values that capture these costs and trends and are thus much more appropriate than the current charge-based values.

Five-Year Refinement of Relative Work Values

OBRA89 requires HCFA to review the accuracy of the entire relative value scale every five years. Some refinements from the first such recalibration must be completed by 1997; the process is already under way. The act also requires the Secretary of Health and Human Services to consult with the Commission concerning the five-year refinement. In its *Annual Report to Congress 1993*, the Commission described a set of requirements for this activity and discussed several issues that must be addressed to ensure that the fee schedule achieves fair and accurate payment (PPRC 1993). This section describes the process HCFA is using for the five-year refinement, evaluating its potential to address the outstanding issues concerning the scale of relative work.

¹³ The malpractice expense component accounts for about 5 percent of total payments under the fee schedule.

¹⁴ This approach is described in more detail in *Professional Liability Insurance Expenses Under the Medicare Fee Schedule: A Resource-Based Approach* (1992b). This report also includes estimates of the reallocation of payments that is likely to occur if the risk-of-service approach were implemented.

The process chosen by HCFA seems capable of making relative work values more accurate for many individual services. The specific design of this first recalibration, however, may constrain what it is likely to accomplish. Because it focuses on individual services and defers cross-specialty comparisons until later stages, its potential to address possible systematic problems within the scale of relative work will likely be limited. These include the possible undermeasurement of preincisional and postincisional work for some operations, compression of the difference in value between complex and simple services, and misplacement of entire groups of related services on the scale of relative work. No method has yet been developed to account for any differences in productivity gains between evaluation and management services and procedural services. Finally, whether the measures devised to identify overvalued services will be sufficient to prevent the inappropriate devaluation of EM services by any net increase in the values of non-EM services remains to be seen. The Commission expects that the experience gained from this initial five-year refinement process will be valuable when these broader concerns are addressed in future recalibrations.

The Five-Year Refinement Process. Although the five-year refinement should normally address all three components of the fee schedule (work, practice expense, and malpractice expense), HCFA is limiting this first review to the work component. This is appropriate because the other two components are still charge-based. After resource-based values have been incorporated for the practice expense and malpractice expense components, they should be reviewed in future five-year refinements. The Commission is concerned that HCFA has not yet addressed whether or how to review the relationship among the three components of the fee schedule, an issue that should be included in future refinements. The initial five-year refinement thus will focus exclusively on correcting inaccurate relative work values.

The relative work values for some services may need to be recalibrated for two reasons. The first is that the appropriate relative work value of a service may have changed since 1992. Technology or medical practice may have advanced, and physicians' perceptions of work may evolve even if the actual task stays the same. Recalibration is also needed for services that were assigned incorrect work values when the relative value scale was first derived in 1992.¹⁵ There is anecdotal and empirical evidence that such corrections may be needed (Harer 1994; Morton et al. 1994). The original refinement process in 1992 focused on raising the values of undervalued services, so there may still be overvalued services that need to be corrected.

HCFA has chosen to use a series of small-group processes in collaboration with the American Medical Association/Specialty Society RVS Update Committee (RUC) (HCFA 1994b). This type of small-group approach is consistent with previous Commission recommendations. The process closely parallels that used to update the fee schedule annually for new and revised Current Procedural Terminology (CPT) codes.¹⁶ In December 1994, HCFA solicited public input on all work relative

¹⁵ Although the purpose of the five-year refinement is clearly directed toward shifts in work over time, OBRA89 language would also permit correcting original errors in the relative value scale.

¹⁶ The annual update process for new and revised codes will be curtailed during 1996 to permit HCFA and the RUC to focus on the five-year refinement.

value units (RVUs) in the fee schedule. The agency has transmitted substantive comments to the RUC, along with additional codes it has identified for review. The RUC is now gathering and reviewing evidence on the work entailed in these codes. In September 1995, the RUC will recommend to HCFA values for these codes. The agency and its carrier medical directors will then review the committee's recommendations, make changes where necessary, and publish proposed values in the spring of 1996. A 60-day public comment period will follow. HCFA's multidisciplinary refinement panels will review the comments in the summer of 1996 and make final changes.¹⁷ HCFA will publish final relative work values in the fall of 1996, to be come effective January 1, 1997.

Outstanding Issues. The Commission has previously defined several criteria for the five-year refinement process (PPRC 1993). These include:

- mechanisms to promote consistent decisionmaking,
- fair methods and representation of involved parties,
- means to identify overvalued as well as undervalued services,
- ways to ensure public accountability, and
- feedback to the CPT Editorial Panel when codes need revision to achieve accurate resource-based payment.

Consistency. HCFA and the RUC are using several of the methods identified by the Commission as likely to make the relative values of different CPT codes more consistent. Both entities have adopted clear decision rules for setting relative values. They have developed a reference set of 363 services that spans the range of work within every specialty. This set is intended to provide a common reference point, when possible, for comments about the work of different services. The RUC has developed guidelines for specialty societies to use in surveying their members about the relative work of the services they provide. HCFA is giving the RUC objective information from its databases to facilitate comparisons among similar types of services. The information comprises data such as length of stay, site of service, frequency data, specialty mix, and work intensity (RVUs per minute).

Ultimately, however, the internal consistency of the scale of relative work will depend primarily on the efforts of the small groups both HCFA and the RUC are using. Despite guidelines for conducting surveys, the data obtained by specialty societies for the RUC vary in quality. Small sample sizes, low response rates, and respondents' different levels of experience with the service limit the generalizability of some surveys (HCFA 1994b). The vignette a specialty society chooses to

¹⁷ The refinement panels will comprise three groups of physicians: carrier medical directors, primary care physicians nominated by primary care specialty societies, and specialists nominated by specialty societies most closely associated with the services in question. After discussion, each panelist will rate each service on the scale of relative work. HCFA will apply statistical tests to determine whether the three groups agree that the proposed value should be changed and what the new value should be (HCFA 1994b).

exemplify the CPT code may not represent the average work of the service, and even ideally conducted surveys can yield inconsistent results.¹⁸ The work intensity data calculated by HCFA can provide a useful screen for outlier services, but their validity and usefulness in making finer distinctions is uncertain (Florin 1995). The usefulness of the other objective data available to the RUC and HCFA is untested. At a minimum, the data should be verifiable, nationally representative, and collected uniformly.

The task of making comparisons across dissimilar services and specialties is difficult at best, and HCFA and the RUC will have to learn from experience which types of evidence and reasoning best facilitate such comparisons. Several aspects of the process, however, are likely to further limit its potential to review and improve the internal consistency of the relative value scale. An important flaw is that the cross-specialty comparisons embedded in the reference set of services have not been validated. The RUC assembled the reference set simply by aggregating a number of independent sets of services associated with different specialties; the committee explicitly disavows that different specialties' services are necessarily in correct relationship to each other (Rodkey 1994). Further, the reference services themselves were not necessarily chosen because their values were thought to be correct; some were selected primarily because they are commonly performed services that span the scale of relative work. Finally, the RVUs of the reference services themselves are subject to public comment and change during the five-year refinement process.¹⁹ Comparisons with reference services thus may be more complicated under these circumstances.

The manner in which the reference set was derived means that the challenging task of comparing the services that different specialties perform has been deferred to the RUC and to HCFA's review of the RUC's recommendations. The RUC process itself largely delays comparing services across specialties until the last stage of its deliberations.²⁰ At that point, it may be hard to realign blocks of services, because of the complex web of comparisons and other possible realignments that would necessarily result. Another possibility is that adjustments of relative values within a specialty or a family of services early in the process may inadvertently create multiple inconsistencies across other specialties or types of services—inconsistencies that will need to be resolved later in the process. It is not clear how inconsistencies would be corrected among services that were not initially referred to the RUC for review. Conceivably, the task of correcting existing and newly created distortions may grow too large

¹⁸ Surveys that use methodologies different from that of the original Harvard study that was used to form the relative value scale, even if rigorously conducted, pose special issues. For each specialty, a different methodology could be devised that emphasizes particular aspects of the work it performs that are possibly undermeasured by other methodologies. This would threaten the internal consistency of the relative value scale.

¹⁹ To mitigate these problems, the Commission had earlier suggested that a two-stage process would be preferable for the five-year refinement. The first stage would validate the values of the reference services, particularly across specialties. Systematic problems would best be addressed in this stage. In the second stage, values for individual services would be fitted into the framework created by the reference set (PPRC 1993).

²⁰ The RUC plans first to have specialties review their services at issue and recommend values for them, along with supporting evidence. Multidisciplinary panels within the RUC will review the recommendations, evidence, and comments on codes within broad types of service. Finally, the RUC as a whole will meet in late August 1995 to consider the panel reports on the specialty society recommendations and to resolve major cross-specialty issues.

for the RUC and HCFA to accomplish in the time available. Whether these problems will be significant—or even whether empirical and other evidence will permit consistent, defensible comparisons across dissimilar services—is yet to be seen. HCFA's and the RUC's experience with this process will be invaluable in planning ways to address these issues in future refinements.

Fair Methods and Representation. Primary care specialties are relatively underrepresented on the RUC. There is some disagreement about whether this potential disadvantage will be sufficiently counteracted by the requirement of a two-thirds majority vote to approve relative value recommendations and the dynamics of the multispecialty group process. A further safeguard will be provided by HCFA's multidisciplinary panels, which will be used at the end of the process to review public comments on the proposed values. These panels will weight equally the recommendations of primary care physicians, specialists, and Medicare carrier medical directors. There is some opportunity for other medical professionals affected by the relative value scale to provide input to the RUC, but they do not have voting rights.

Private payers that use the RVS are an important group that at this time participates only during the public comment period of the rulemaking process. Rather than using only Medicare carrier medical directors as payer representatives, HCFA should consider including private-payer representatives in its refinement panels.

The methods of decisionmaking used by the RUC and HCFA seem clear. Although some specialty societies may devote greater resources to supporting their relative value recommendations, it is not clear whether they will gain any advantage from doing so.

Means to Identify Both Overvalued and Undervalued Services. During the refinement of the initial relative values in 1992, more relative values were increased than reduced. This was predictable from the design of the process, which focused almost entirely on services that specialty societies identified as undervalued. To maintain budget neutrality, all relative values had to be lowered. Services whose relative values were not reviewed or changed were passively devalued by this budget-neutrality adjustment.

These circumstances raised concern about the long-term effects that refinement processes might have on the values of other services. Evaluation and management services may be particularly vulnerable to such passive devaluation. It may be more difficult to show that the work of EM services has changed over time, because these services are so broadly defined. It is also difficult to compare the work of EM services with that of non-EM services. It may be harder, therefore, to make a good case for increases in values for EM services. Furthermore, gains in productivity are more likely to occur for procedural services, so they may become slightly overvalued unless the changes are detected and corrected. EM services, by contrast, tend to be defined in terms of fixed amounts of work, so productivity gains are less likely. No methods are readily available for detecting productivity gains and accounting for their differential effects on the relative shares of work represented by EM and procedural services. The RUC is making plans to implement the Commission's suggestion that new services be routinely scheduled for review to adjust for the learning curve often associated with them, but this will not take effect until after the five-year refinement (Rodkey 1995).

EM services would not be devalued inappropriately if the five-year refinement process accurately identifies and corrects overvalued as well as undervalued services. Any net gains or losses would then reflect more accurate resource-based payment across the entire scale. HCFA and the RUC are developing objective means to identify overvalued services, and all participants in the process are aware that the budget-neutrality requirement makes it a zero-sum game. It remains to be seen whether these measures will work. It should also be realized that EM codes will be considered in the process, and their values may well be raised. One specialty society, for example, has recommended to HCFA that the values of all EM services be increased, based on their intensities compared with those of procedural and surgical services (Cleaveland 1995).

When the process is completed, if services that increase in value significantly outweigh those that decrease (i.e., if a substantial downward adjustment in all relative values is needed to maintain budget neutrality), and EM services are passively devalued as a result, there is likely to be disagreement about whether the devaluation is appropriate. Some would accept this as the end result of a fair process (Rodkey 1995). Others would argue that the focus of the 1992 refinement process on undervalued services and the presumed higher productivity growth of procedural services means that more services need to be reduced in value than raised. If the reverse occurs, they would take this as *prima facie* evidence that passive devaluations of EM services were inappropriate.

HCFA should carefully monitor the refinement process and determine whether it has unfairly disadvantaged EM services. If so, it would be justifiable for HCFA to mitigate the inappropriate reductions in their values. The agency has stated that it does not have the legislative authority to apply the budget-neutrality adjustment to subsets of services. It certainly has the authority, however, to correct errors in its refinement process so that the end result is the most accurate calibration of relative values to resource use.

Public Accountability. The rulemaking process and the reservation by HCFA of final authority and responsibility for the five-year refinement of the RVS seem to provide adequate public accountability.

Feedback to the CPT Editorial Panel. The five-year refinement process should identify how the coding system can better facilitate resource-based payment. The way in which CPT codes are defined can affect the extent to which relative values accurately reflect the work of physicians (PPRC 1993; HCFA 1994b). The process undoubtedly will uncover instances in which code revisions are needed to improve the accuracy of resource-based payment. The American Medical Association (AMA) is planning to facilitate communication between the RUC and the CPT Editorial Panel (Rodkey 1995). A member of the CPT Editorial Panel attends the RUC meetings, and HCFA can communicate directly with the CPT Editorial Panel.

Geographic Adjustment of Payments Under the Fee Schedule

The Medicare Fee Schedule includes geographic practice cost indexes that are applied to the three relative value components of the schedule to adjust payments for variation in local prices. The use of GPCIs as part of the fee schedule raises two distinct issues: the composition of the indexes themselves and the geographic areas to which they apply. The Commission studied each of these issues before the

fee schedule was implemented in 1992. This section summarizes the Commission's previous analysis of these issues, HCFA's changes to the GPCIs, and new HCFA-sponsored research on payment areas. The GPCI changes satisfy the OBRA90 requirement that HCFA update the indexes at least every three years, and include some technical improvements.

Geographic Practice Cost Indexes. The Commission's research into sources for the data required to create the GPCIs led it to conclude that HCFA was using the best data available to calculate the GPCIs when the fee schedule was first implemented. Two aspects of the indexes were problematic: use of median residential rents as a proxy for office space costs and the limited nature of available malpractice premium data. The Commission also noted that the GPCIs were based largely on data from the 1980 U.S. Census and acknowledged HCFA's plans to use 1990 census data as soon as they became available. These were indeed included in the recent revisions. A General Accounting Office analysis of the indexes concurred with the Commission's conclusion that use of residential rents is not optimal but acceptable, given the available data; that malpractice data originally used were not as comprehensive as they should be; and that 1990 data should be used as soon as they became available (GAO 1993). The new regulations cover these issues and several technical details.

Practice Expense GPCI. The practice expense index is constructed from price indexes for employee wages, rent, and miscellaneous equipment and supplies. As mentioned above, use of residential rents has been the most controversial element of this GPCI. HCFA has been working to identify alternatives to the residential rent data but has found no source that can provide reliable data for the entire nation (HCFA 1994a). Therefore, the practice expense GPCI is still based on residential rents, which are likely to be highly correlated with commercial rents. HCFA is, however, still looking for other sources of commercial rent data, including the U.S. Postal Service, the General Services Administration, and the Internal Revenue Service.

Another issue related to the practice expense GPCI is that shipping costs may be higher in some areas, particularly Alaska, Hawaii, and Puerto Rico. HCFA could not locate any systematic data that supported calculation of the additional cost of shipping supplies to these areas and thus has not developed any add-ons for these costs. Anecdotal information from commercial delivery firms showed an increase of 10 percent to 20 percent in shipping costs to these areas, leading HCFA to conclude that this additional cost of shipping, which is under 5 percent of equipment and supply costs, is empirically insignificant (HCFA 1994a).

Malpractice Data. When the fee schedule was introduced in 1992, HCFA was already working to improve its database of malpractice premiums paid by physicians nationwide. It now has more current premium data that reflect:

- twenty specialties, compared with three in the original GPCIs;
- representative types of coverage (\$1 million/\$3 million); and
- the most common insurers in each state—typically encompassing more than 80 percent of each state's market (HCFA 1994a).

These data are significantly better than the data underlying the malpractice GPCI that was in effect from 1992 to 1994.

Technical Issues. Besides addressing these data concerns, the new regulations cover several technical issues. First is a change that affects all indexes. Formerly, index values for Medicare payment areas were created from data for metropolitan statistical areas (MSAs) weighted by population rather than by some measure related to Medicare or overall health expenditures. At the time, there was concern that historical Medicare payment levels did not reflect relative cost differences across areas and thus would not be appropriate for weighting purposes. In the GPCI revisions, HCFA has used RVUs instead of population as weights when mapping MSA data into Medicare payment areas (HCFA 1994a). This is expected to make the resulting values more representative of geographic price differences and should make it simpler to preserve budget neutrality when payment areas are enlarged.

HCFA also adjusted the method for calculating the work GPCI in large metropolitan areas such as New York and San Francisco. Previously the agency used data from all counties within MSAs to calculate the median professional wage for the MSA. It has concluded, however, that in the case of extremely large MSAs, called consolidated metropolitan statistical areas (CMSAs), the degree of wage variation within the area requires using less aggregated measures. Therefore, it is now using county-level measures for counties within a CMSA to calculate professional wage indexes, so that the work GPCI can vary within CMSAs (HCFA 1994a).²¹

The original GPICs were based on revenue share information from a survey conducted by the AMA in 1987. These data affect only the practice expense GPCI, which is a weighted average of several underlying price indexes.²² Other key policy elements, such as the Medicare Economic Index (MEI) and the rebasing of the three fee schedule components to a common scale, are based on data from the AMA's 1989 survey. The revised GPICs are based on the same 1989 data, making them consistent with these other policy elements.

HCFA's new regulation explicitly states that the components of the GPCI and MEI should be weighted with the same revenue share data (HCFA 1994a). It is not clear, however, that HCFA plans to rebase the fee schedule components relative to one another if it eventually updates the shares used in the GAFs and MEI. In its 1994 annual report to Congress, the Commission raised the issue of whether and when the three components of the fee schedule should be rebased relative to one another, as more up-to-date revenue share data are available. This is discussed below as part of the Commission's framework for making changes to the fee schedule.

Outstanding Issues. The Social Security amendments passed in 1994 included a provision that the Secretary study issues of data for and updating of the geographic adjustment factors and report to the

²¹ GAFs will vary only within CMSAs that include more than one payment area.

²² They also affect the GAF for a typical service that is often used to analyze fee schedule payment changes. This is created by using aggregate shares to combine the three GAFs with weights that reflect the average across all services.

Congress in 1995. Since the primary data source is the decennial census, it is not clear what new information HCFA can use to update the GPCIs in three years. The Commission has previously recommended that data sources be identified for inter-census updates once payment areas have been redefined and made more consistent with payment policy. The current set of payment areas complicates use of available data to update the GPCIs between census years because it includes areas that cross county and MSA boundaries and are, in some cases, fairly sparsely populated. In fact, HCFA has included data availability as one criterion in its current analysis of alternative payment area definitions, discussed below.

Effect of Revisions. Although the GPCI revisions are budget neutral and will not affect total outlays, they will have a fairly large effect on payments in some areas. OBRA90 requires phasing in over two years any change to the GPCIs if more than a year has passed since they were revised. Therefore, for the three indexes, new values are reported for both 1995 and 1996 (HCFA 1994b).

Because of the difference in their relative weight for most services, changes in the work and practice expense GPCIs have a larger overall effect on payments than those in the malpractice GPCI. Thus, for example, the malpractice GPCI for Alaska will increase about 55 percent, from 1.042 to 1.617. But because of 3.8 percent and 8.0 percent declines in the work and practice expense GPCIs, respectively, the GAF for a typical service will decline more than 3 percent (HCFA 1994b). The effect of the revisions, therefore, is better summarized through the GAF for a typical service than by analyzing the changes within each of the three indexes, since it is their weighted sum that affects overall payments to an area.

HCFA estimates that overall GAF-related payment changes will be less than 3 percent for about three-fourths of payment areas (HCFA 1994b). The largest change will be in payments for services provided to Medicare beneficiaries in Rhode Island, which will increase 7.8 percent, on average, while those for care provided in Peoria, Illinois, will drop the most, 8.4 percent (HCFA 1994b). These changes do not mean that prices have fallen in Peoria, but rather that they are lower than previously thought relative to the national average. In fact, because the new GAFs are based on data from the early 1990s when the fee schedule was first introduced, these changes could be interpreted as correcting under- or overpayment in some areas for the past three years.

Payment Areas. The GPCIs are calculated for each of the Medicare payment areas, which are based largely on the localities of the previous payment system. These localities are not consistently defined across states and are not necessarily built from widely used geographic units such as counties. How they are defined affects the degree to which payments in any particular place are accurately adjusted for local price levels; in general, larger areas will be less able to capture local price variation. It also affects the complexity of creating accurate indexes; smaller areas will create a more difficult data burden.

One of the Commission's responsibilities to the Congress before the fee schedule was implemented was to study the appropriateness of the current payment area definition. To fulfill this charge, the Commission contracted with Health Economics Research (HER). The contractor was asked to

evaluate alternative payment areas, looking at how accurately local input prices could be tracked; how differences at area boundaries could be minimized; and how the entire process could be made as conceptually and administratively straightforward as possible. Using county-level input price data, HER and Commission staff assessed various ways to combine counties into payment areas. On the basis of this analysis, the Commission included in its 1991 annual report to the Congress a recommendation that all but the 15 states with relatively high price variation should be made statewide payment areas (PPRC 1991). These 15 high-variation states should be divided into up to five payment areas, where MSAs are assigned to one of four population-based categories and non-MSAs to the fifth. Further, the Commission recommended that border-crossing MSAs should be treated as if they were entirely within whichever state has the largest share of the MSA's total population, to avoid creating payment differentials within MSAs. The research suggested this approach would create a total of 94 payment areas nationwide.²³

At the time it conducted this analysis, Commission staff were told by HCFA that the agency lacked the authority to change payment areas without new legislation, because OBRA89 explicitly referred to then-current localities as payment areas under the fee schedule. Soon thereafter, HCFA legal staff concluded that OBRA89 did not, in fact, preempt HCFA's prior authority to define localities or payment areas. When the fee schedule was first introduced in 1992, therefore, HCFA described a process whereby physicians, professional organizations, or others could petition to have a state redefined as a single statewide payment area. This process requires the petitioning group to document widespread support for the change among the state's physicians, including those who are likely to receive lower payments under a single area. Six states have successfully petitioned for reclassification as a statewide area under this process.²⁴

HCFA has stated its intention to study the possibility of widespread area definition changes in 1996 or shortly thereafter (HCFA 1994a). Toward this end, it has contracted with HER to study several alternative area configurations. The proposed analytical approach closely follows the research HER performed for the Commission several years ago. In fact, the contractor proposes to use the same measures to compare alternative definitions as it employed in the earlier study.

There are three major differences between the current HER study and that undertaken by the Commission four years ago, however. First, HCFA created a list of alternative area definitions that differ from those studied earlier. Although this list does not include the Commission's recommended definition, the similarity of the research design should allow for easy comparison of results with the Commission's previous analysis.

Second, HCFA has specified that states which are currently statewide areas should be excluded from most analyses, so that measures of price variation and concordance typically will be calculated only

²³ A recent Urban Institute analysis of this issue recommended a slightly different definition, but it is also based on the correlation between population density and prices.

²⁴ In 1992, Minnesota, Nebraska, and Oklahoma were converted to statewide areas, as were North Carolina and Ohio in 1994 and Iowa in 1995.

for those states with more than one payment area.²⁵ According to HCFA, physicians in some cities within statewide payment areas have petitioned for creation of substate areas (HCFA 1994b). In the course of analyzing price variation and appropriate geographic aggregation, it may be helpful to revisit all areas to evaluate the merits of such petitions. In its analysis, the Commission studied alternative payment areas in all states, regardless of current policy. Although its recommended definition would not result in creating substate areas in what are now statewide areas, the Commission is concerned that this possibility is not being explored more broadly in the current reevaluation of payment areas.

Third, HCFA has stipulated that HER base its analysis on the GPCI for physician work as specified by OBRA89. The legislation states that only 25 percent of the variation in professional wages from the national mean should be reflected in the GPCI used to adjust the physician work component. By analyzing this constrained measure, the current analysis will find more price homogeneity within areas than would be reflected in an unconstrained measure of wages. The study is therefore more likely to recommend aggregation of areas that may in fact have some meaningful professional wage differences.

Imagine, for example, that professional wages in a big city are 25 percent higher than those in the rest of the state. When considering whether to combine them into a single payment area, the wage data would show a ratio of 1.25:1 for wages in the city compared with the rest of the state, while the work GPCI ratio would be 1.0675:1. If the decision to combine the city and rest of state into one payment area were based on the wage data, the 1.25:1 ratio may be interpreted as indicating sufficient wage variation to warrant two separate payment areas, leading to two payment areas with a GPCI ratio of 1.0675:1. If instead the ratio of the GPCIs were the basis of analysis, it may be thought to be small enough to justify a single statewide area. In this case, the actual index for the statewide area would be somewhat below 1.0675, depending on the distribution of Medicare RVUs, which are used to weight the data, within the state and city. If the city includes 25 percent of the state's RVUs, the state's index would be 1.0168.

Both the wage data and the constrained GPCI measure can be justified as tools for analyzing new payment area definitions. Use of the GPCI can be defended because it is explicitly described in OBRA89 as the means for adjusting the physician work component of the fee schedule. Conversely, the underlying wage data may be more appropriate for analysis of payment areas, since the GPCI was not described for this purpose and its use could suppress the wage variation reflected in physician payments beyond what the Congress intended. Because of these competing perspectives, the Commission's analysis included both measures in its analysis of alternative payment area definitions. The Commission anticipates reviewing HCFA's analysis with regard to underlying wage variation, not simply work GPCI variation. The Commission is keenly interested in this issue and will review its previous work in light of HCFA's conclusions.

²⁵ This requirement was relaxed for one of the options analyzed.

Other Payment Policy Issues

The Congress's inclusion of resource-based relative values for practice expenses addresses one of the Commission's major concerns about current fee schedule payment policy. There are, however, several outstanding issues that merit consideration by the Congress and HCFA as payment policy is further developed and refined.

VPS Policy. Along with practice expense relative values, the Commission has long been concerned about the implications of continuing to use separate update factors for three different groups of services within the fee schedule. The implications of this on the distribution of payments were discussed earlier in this chapter, while the changes in these conversion factors over time are fully explored in Chapter 3. Continuation of current policy may lead to distortions that virtually undo the payment changes expected under the fee schedule and could dramatically undermine the notion that Medicare physician payments reflect relative resource use. The Commission continues to recommend that the current VPS policy be changed so that these differential updates are not compounded in the future.

Framework for Changing the Fee Schedule. In last year's annual report, the Commission developed three principles after reviewing the sometimes unexpected implications of policy changes and implementation strategies in the first few years of the fee schedule (PPRC 1994). The Commission encourages the Congress and HCFA to use these principles to guide further policy changes:

- The relative value scale should be usable by all payers.
- Changes in the relative values for services should be made only to make resource-based payment more accurate.
- Changes in the overall shares of the aggregate work, practice expense, and malpractice expense components of the relative value scale should be made only when there is evidence that their relative sizes are inaccurate.

To implement policy in a manner consistent with these principles, HCFA must be given the authority to change the conversion factors. Otherwise, it must make across-the-board changes in relative values to achieve budget neutrality or savings.

The first principle reflects the increased use of the fee schedule by other payers.²⁶ HCFA should ensure that the relative value scale is an all-patient scale and that Medicare and pediatric adjusters are developed if necessary. It cannot do this effectively, however, if it must change relative values annually to implement budget-neutral or budget-saving payment policies, both of which can more

²⁶ See Appendix A for a description of the broader use of the Medicare Fee Schedule.

simply be achieved through adjustments to the three conversion factors. The annual changes to relative values that occur for Medicare budgetary reasons are confusing to stakeholders and make it much more complicated for other payers to use the fee schedule effectively and consistently.

The second principle reflects the original intention of the Congress and the Commission that payment should be resource-based, which is expected to make it more equitable among physicians and to better insulate patient care decisions from financial incentives. This principle has led the Commission to recommend that other policy objectives, such as promoting primary care, be achieved through explicit bonus policies rather than by moving relative values from their resource basis.

The third principle underscores the importance of maintaining the relationship among the three components of the fee schedule. This relationship should be altered only on the basis of more recent data on revenue shares and not to achieve other ends like budget savings. For example, the OBRA93 reductions to the practice expense relative values of certain services were implemented in such a way that the overall share of payments accounted for by practice expenses was reduced, a result the Commission finds inappropriate. If some services' relative values were too high, as implied by the policy, then those for other services were too low, given that they were calculated as part of a fixed pool. The two effects of OBRA93 should have been achieved through two separate steps. First, overvalued practice expenses should have been reduced, with the excess RVUs added to the practice expense relative values of other services. Second, savings should have been achieved through an across-the-board reduction in conversion factors.

If the MEI and GPCIs are eventually revised to reflect more current revenue share data, as described above, it may be appropriate to rebase the three components of the fee schedule. Currently, all three reflect the results of the AMA 1989 survey. If, however, there are significant changes in the relative shares of revenues that are accounted for by net income, practice expenses, and malpractice expenses, then the three components should be adjusted relative to one another to reflect this shift. Similarly, future five-year reviews of the relative value scales should not be limited solely to relative values within the three scales, but should also address how the three relate to one another. The Commission expects to analyze the relationship among the three fee schedule components to see if it has changed over time.

Combined, these three principles can be applied to the variety of policy and budget changes that are likely to occur, such as the introduction of new service codes into the fee schedule and implementation of resource-based practice expense relative values. If adopted by the Congress and HCFA, these principles should help maintain the integrity of the fee schedule as policy and budget changes are implemented over the next few years. They also show the importance of giving HCFA the authority to achieve budget neutrality through the conversion factor, instead of only through adjustments to relative values.

Use of Visit Codes. New codes for evaluation and management services were introduced with the implementation of the Medicare Fee Schedule. Last year, the Commission concluded that adoption of these new codes has led to improved coding of EM services (PPRC 1994). Physicians began using a

wider range of codes to describe their visits, and coding practices no longer vary substantially by carrier. In addition, based on claims through June 1993, there were no detectable trends of coding higher levels of visits over time.

Some observers remain concerned, however, that codes are being used inappropriately. In particular, some have asserted that certain specialties have consistently used higher levels of codes for visits than warranted and have done so since the new codes were introduced. Detection of such inappropriate coding can be assessed only through an audit based on data from medical records, since there may be appropriate differences in coding due to differences in case mix. Analyses of claims data were conducted, however, in order to describe differences in coding of visits by specialty when the fee schedule was first implemented. The pattern of relative intensity varies across specialties (Table 2-5). Within the class of office visits for new patients, general and family practitioners have, as expected, a substantially lower intensity than other medical specialists. The differences are much smaller for hospital visits. General surgeons have the lowest relative intensity of office visits for new patients among surgical specialists, but the highest for initial hospital visits. Except for office-based care for new patients, surgeons typically have lower intensity visits than medical specialists.

Table 2-5. Intensity of Visit Coding for Selected Specialties, 1992

Specialty	Office, New Patient		Office, Established Patient		Hospital, Initial Care		Hospital, Subsequent Care	
	Average Intensity	Relative Intensity	Average Intensity	Relative Intensity	Average Intensity	Relative Intensity	Average Intensity	Relative Intensity
General Practice*	\$48.48	1.00	\$28.89	1.00	\$84.39	1.00	\$35.11	1.00
Internal Medicine	62.45	1.29	31.89	1.10	88.55	1.05	36.26	1.03
Cardiology	67.49	1.39	32.95	1.14	88.67	1.05	37.70	1.07
Gastroenterology	62.16	1.28	31.14	1.08	85.80	1.02	35.06	1.00
General Surgery	48.22	0.99	28.22	0.98	82.23	0.97	34.87	0.99
Gynecology	55.91	1.15	33.94	1.17	79.82	0.95	36.26	1.03
Orthopedics	49.53	1.02	27.47	0.95	78.75	0.93	32.98	0.94
Urology	51.81	1.07	27.25	0.94	74.56	0.88	32.59	0.93

SOURCE: Physician Payment Review Commission analysis of Medicare claims, 5 percent beneficiary sample, 1992.

* General practice includes both general and family practitioners.

NOTES: Average intensity is calculated for a class of visits using the average allowed charges for 1992 as constant prices, and weighting by the number of visits in a level for each class of visits.

Relative intensity is the ratio of the average intensity for the specialty group to the average intensity for general practice.

In addition to the possible inappropriate use of codes, others have suspected that physicians eventually might begin to “upcode” or code higher levels of visits within a class of services. The Commission therefore analyzed 10 quarters of claims data to detect any such changes. For each class of service, an average intensity was calculated for each quarter between January 1992 and June 1994. Over this period,

there is a statistically significant increase in the average intensity of visits within eight of the nine service classes (Table 2-6). Only coding of new patient office visits did not show consistently higher levels over time. More detailed analyses did not reveal any systematic differences by physician specialty.

Table 2-6. Change in Intensity of Visit Coding by Visit Type

Type of Visit	Average Intensity, First Quarter 1992 (dollars)	Increase in Intensity 1992 to 1994 ^a	Average Change in Intensity Per Quarter 1992-1994 (dollars)
Office Visit, New Patient	55.12	0.8	0.05
Office Visit, Established Patient	30.57	1.0	0.04 ^b
Hospital, Initial Care	86.78	2.6	0.25 ^b
Hospital, Subsequent Care	36.08	2.7	0.12 ^b
Consult, Office	91.15	0.8	0.11 ^b
Consult, Initial Inpatient	95.51	3.2	0.34 ^b
Consult, Follow-up Inpatient	38.16	5.3	0.24 ^b
Consult, Confirmatory	79.79	7.3	0.53 ^b
Emergency Department	56.03	4.8	0.47 ^b

SOURCE: Physician Payment Review Commission analysis of Medicare claims, 5 percent beneficiary sample, 1992-1994.

^a Intensity measured from the first quarter of 1992 to the second quarter of 1994.

^b Statistically significant difference from zero at the 0.05 level.

NOTE: Average intensity is calculated for a class of visits using the average allowed charges for 1992 as constant prices, and weighting by the number of visits in a level for each class of visits.

The Commission has shared its analysis of this trend with HCFA, which is currently conducting its own analysis of this issue. Depending on the results of its work, HCFA may conduct some audits targeted at the use of certain codes by different specialists. In addition, the CPT panel continues to modify and improve its descriptions of EM services to enable physicians to code with greater accuracy. New tools, such as the recently released documentation guidelines, should reinforce proper coding practices. In light of the current findings, the RUC may want to consider whether additional changes are necessary.

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ADDRESSING LIMITATIONS OF THE VOLUME PERFORMANCE STANDARD SYSTEM

Higher Medicare spending for physician services is driven by two forces: rising payment levels and increases in the number and mix of services per beneficiary (also called volume and intensity growth). During the 1970s and 1980s, price restraints were used to control the higher spending attributable to increasing payment levels. By the late 1980s, however, with constraints on payment levels in place, volume and intensity growth had become the primary cause of higher program spending. In fact, from 1986 until 1992, while physician payment rates grew less than 2 percent annually, the volume and intensity of services per beneficiary rose almost 8 percent per year (Board of Trustees 1994).

The Volume Performance Standard (VPS) system is designed to curb the rise in Medicare spending by linking payment levels to the growth in volume and intensity of services. Payment levels under the Medicare Fee Schedule are determined by relative values and conversion factors which translate relative values into dollar amounts for each service. The VPS system operates by setting target rates of expenditure growth for physician services, and then reducing or increasing conversion factors two years later, depending on whether expenditure growth exceeded or fell below its targets. Target rates of expenditure growth are called performance standards; adjustments to payment levels based on these standards are called conversion factor updates. Linking updates to performance standards has two purposes. First, it limits the growth in spending. In addition, it is intended to restrain the growth in volume and intensity by providing the medical profession with a collective incentive to reduce inappropriate care by, for instance, developing and disseminating practice guidelines that promote cost-effective practice styles.

The VPS system relies on input from several sources to set performance standards and conversion factor updates. The Secretary of Health and Human Services (HHS) must make recommendations on performance standards and updates to the Congress by April 15 of each year for the next calendar year. The Commission must review and comment on those recommendations, and make its own by May 15. The Congress may adopt these recommendations or set its own updates and performance standards. Otherwise, they are determined by default formulas.

These default formulas are central to the VPS system because they are often used to determine the performance standards and updates. Even when the Congress has chosen to deviate from the formulas, they have been a starting point for congressional deliberation. Moreover, when options for Medicare payment to physicians are considered, the spending associated with each option is compared with that under the default formulas. Because of current budget rules, an option that would raise spending cannot be adopted unless the higher spending is offset by either increasing tax revenues or making spending cuts elsewhere.

The Commission has long held that a budgeting tool like the VPS system is necessary to keep program expenditures at a sustainable level. It has, however, also continued to express concerns that methodological flaws within the default formulas used in the VPS process may prevent it from working as intended.

These flaws have led to several problems. First, payment levels have become distorted, so that they no longer reflect the resource-based relative values that underlie the Medicare Fee Schedule. In addition, as now configured, the VPS system will result in increasingly unrealistic target rates of expenditure growth. Projections based on current VPS formulas show that within the next 10 years, the conversion factor could fall below \$31, the level established when the Medicare Fee Schedule was first implemented. Finally, the VPS system does not fully constrain Medicare spending for physician services to its budget targets.

These major shortcomings are becoming more evident over time. With its attention directed to general health system reform during 1994, the Congress did not address issues pertaining to the VPS system. Because the need to remedy the limitations is growing, the Commission has reexamined these shortcomings and reiterates its previous recommendations.

RECOMMENDATIONS

A single volume performance standard and update for all categories of service should be adopted. If separate standards and updates by categories of services are retained, they should be based on the recent trend in volume and intensity growth for each category as called for in the Omnibus Budget Reconciliation Act of 1990, and differential updates should be in effect for one year only.

To set performance standards, historical trends in volume and intensity growth and the 4 percentage point deduction used under current policy should be replaced by a formula linked to the projected growth of real gross domestic product per capita. In addition, estimates of this growth should be increased by 1 or 2 percentage points to allow for advancements in medical capabilities.

If a single performance standard and update are adopted and the performance standard is linked to growth in gross domestic product, then the Congress should revise the method for determining the conversion factor update. The method should base the update on a comparison of actual and targeted spending accumulated since a base year. The method should be defined to reduce volatility, either by shortening the delay before the update is set, or by incorporating a “smoothing adjustment.” The performance standard for the first year under the new method should allow for previous fee increases in excess of the Medicare Economic Index. It should be lowered only as necessary to ensure budget neutrality. In addition, symmetric limits should be established to restrict the size of annual reductions and increases from the Medicare Economic Index to 5 percentage points.

This chapter provides an overview of the VPS system and a critical evaluation of its major shortcomings. The chapter begins by describing the current VPS system and each of its components. The next section discusses three ways in which the existing system could be improved. First, the importance of returning to a single performance standard and update is discussed. Next, it is shown that linking the performance standard to projected real growth in gross domestic product (GDP) per capita would make the VPS system sustainable. Finally, an approach that would keep Medicare spending for physicians' services within its budget targets is presented. Throughout this chapter, simulations are employed to illustrate the mechanisms underlying the formulas in the VPS system and their limitations, along with the potential effect of adopting the Commission's recommendations.

THE CURRENT VPS SYSTEM

The VPS system works by using performance standards to set target rates of expenditure growth and updates to adjust the conversion factors. First, the performance standard for a category of service is determined for a given year. Two years later, actual expenditure growth for that year is compared with the performance standard. The conversion factor is then increased or reduced, depending on whether actual expenditure growth fell below or above the performance standard.

Established by the Omnibus Budget Reconciliation Act of 1989 (OBRA89), the VPS system set the first performance standard in 1990; physicians were expected to hold expenditure growth for all services to no more than 9.1 percent (Table 3-1). A single performance standard was used to cover all physicians' services for the first year only. Separate performance standards for surgical services and nonsurgical services were used for the next two years. A third category for primary care services was added under OBRA93.¹

Table 3-1. Performance Standards, 1990-1995 (percentage)

Category of Service	1990	1991	1992	1993	1994	1995
All Services	9.1	7.3	10.0	10.0	9.3	7.5
Surgical	*	3.3	6.5	8.4	*	*
Nonsurgical	*	8.6	11.2	10.8	*	*
Surgical	*	*	*	*	8.6	9.2
Primary Care	*	*	*	*	10.5	13.8
Other Nonsurgical	*	*	*	*	9.2	4.4

SOURCE: Physician Payment Review Commission compilation of performance standards as reported in the *Federal Register*.

* Not applicable.

¹ Currently, these categories are defined according to the type of service rather than the specialty of the physician. For example, an office visit provided by a surgeon would fall into the primary care category.

The system now sets separate performance standards and updates for surgical services, for primary care services, and for other nonsurgical services like diagnostic tests. The 1995 performance standards for expenditure growth are 9.2 percent for surgical services, 13.8 percent for primary care services, and 4.4 percent for other nonsurgical services (Table 3-1). Conversion factor updates in 1995 are, respectively, 12.2 percent, 7.9 percent, and 5.2 percent (Table 3-2). These 1995 updates reflect a comparison of actual and target rates of expenditure growth in 1993. Conversion factor updates resulted in payments of \$39.45 per relative value unit (RVU) for surgical services, \$36.38 per RVU for primary care services, and \$34.62 per RVU for other nonsurgical services (Table 3-3).

Table 3-2. Conversion Factor Updates, 1992-1995 (percentage)

Category of Service	1992	1993	1994	1995
All Services	1.9	*	*	*
Surgical	*	3.1	*	*
Nonsurgical	*	0.8	*	*
Surgical	*	*	10.0	12.2
Primary Care	*	*	7.9	7.9
Other Nonsurgical	*	*	5.3	5.2

SOURCE: Physician Payment Review Commission compilation of conversion factor updates as reported in the *Federal Register*.

* Not applicable.

Table 3-3. Conversion Factors, 1992-1995 (dollars)

Category of Service	1992	1993	1994	1995
All Services	31.00	*	*	*
Surgical	*	31.96	*	*
Nonsurgical	*	31.25	*	*
Surgical	*	*	35.16	39.45
Primary Care	*	*	33.72	36.38
Other Nonsurgical	*	*	32.90	34.62

SOURCE: Physician Payment Review Commission compilation of conversion factors as reported in the *Federal Register*.

* Not applicable.

Performance Standards

Although performance standards are expressed in terms of expenditure growth, they hold physicians accountable only for increases in the volume and intensity of services. Physicians are not held responsible for other factors that contribute to expenditure growth, including changes in the number of Medicare beneficiaries, changes in payment levels, and changes due to law and regulations. The target rate of expenditure growth, therefore, is based on the actual rate of growth for all factors other than volume and intensity growth, for which a separate target rate is established.

Setting this target rate of growth for volume and intensity of physician services is the most important—yet difficult—aspect of determining performance standards. It requires establishing an appropriate rate of volume and intensity growth, one that would allow for advancements in medical capabilities and access, but would discourage inappropriate utilization. The Secretary's recommendations for the performance standards must account for changes in technology, evidence of inappropriate utilization, reductions in access to necessary services, aging of the Medicare population, and other factors the Secretary considers appropriate. The default formula for the performance standard, however, must be precisely defined and drawn from readily available information. Consistent definitions and data sources are unavailable for measuring many of the factors required for determining an appropriate rate of volume and intensity growth. Therefore, these changes are not directly accounted for by the default formula. A less precise formula for estimating an appropriate rate of volume and intensity growth must be used instead.

The current default formula calculates the performance standard in three steps. First, the historical trend of volume and intensity growth for the prior five years is used as the basis for future volume and intensity growth. Second, this is translated into a rate of expenditure growth through adjustments for changes in the number of Medicare beneficiaries, increases in fees for physicians' services, and changes due to law and regulation. Finally, the third step is to take a deduction to reflect the intent to slow the rate of growth in expenditures. The deduction is taken since historical trends are viewed as incorporating a certain amount of inefficient and inappropriate care. When the VPS system was first implemented, the deduction was 0.5 percentage points. This was gradually increased to 2.0 percentage points; beginning in 1995, it was raised to 4.0 percentage points.

The 1995 performance standard for surgical services illustrates this process. To set it, the five-year historical trend of 4.4 percent was used. In estimating the other factors that determine expenditure growth, enrollment growth was estimated to be 0.7 percent, changes in physicians' fees were 2.3 percent, and changes due to legislation were 5.3 percent. All four of these factors combined resulted in an estimate of expenditure growth of 13.2 percent.² The performance standard factor of 4.0 percentage points was then deducted to arrive at a 1995 performance standard of 9.2 percent for surgical services.

² Compounding of percentages requires these factors to be multiplied. Estimated expenditure growth would, therefore, be the product of 1.044, 1.007, 1.023, and 1.053. This results in 1.132 or 13.2 percent.

Conversion Factor Updates

The VPS system also involves annual adjustments to the conversion factor to reflect differences between the performance standards and actual expenditure growth rates. Updates to the conversion factor depend on the change in the Medicare Economic Index (MEI) and comparisons of actual expenditure growth and the performance standard two years earlier. The MEI, used as a measure of medical price inflation, reflects changes in rents, supplies, and professional wages, and other costs incurred by physicians' practices.³

The default formula for the conversion factor update thus is the MEI plus a performance reward or penalty reflecting the amount actual expenditures fall below or exceed the performance standard.⁴ A lower limit constrains the penalty to 5.0 percentage points. For example, to determine the 1995 conversion factor update for primary care services, the MEI was estimated to be 2.1 percent. Expenditure growth for primary care services for 1993 was estimated to be 5.0 percent, while the performance standard for that year was 10.8 percent. A VPS reward of 5.8 percent was, therefore, added to the estimated MEI to obtain a 1995 conversion factor update of 7.9 percent for primary care services.

IMPROVING THE VPS SYSTEM

Despite five years of experience with the VPS system, natural volatility in volume and intensity growth preclude making definitive assessments of its role in reducing volume and intensity growth. In addition, changes throughout the medical marketplace will always make it difficult to isolate the direct impact of the VPS system. For instance, if a general long-term slowdown in spending were demonstrated, it may be due to the growth of managed care or a slowing in the diffusion of new technologies. Although it is still too early to make an overall assessment of the VPS system's impact, methodological limitations of the VPS default formulas can be evaluated. Some of the limitations are apparent from the results of the VPS system to date; others can be demonstrated using simulations.

There are three major limitations to the default formulas. First, determining separate performance standards and updates for different categories of service leads to distortions in relative payments, which then no longer reflect the fee schedule's resource-based relative values. By applying different updates to each category, RVUs in different categories are not worth the same amount. This violates the basic principle underlying the resource-based relative value scale, namely that each RVU should be worth the same amount regardless of the patient or service to which the RVU is attached. Second, the formula for the performance standard takes a fixed deduction of 4 percentage points from the historical trend in volume and intensity growth for the prior five-year period. This is an inflexible approach that is insensitive to changes in the health care delivery

³ The Secretary's recommendations for the conversion factor updates consider changes in the volume and intensity of services and in access to services, along with any factors that may have contributed to these changes. For example, if the conversion factors were so low that fewer physicians were willing to treat Medicare patients, the Secretary might recommend higher conversion factors to improve access to care.

⁴ In some years, statute requires a reduction in the MEI. For example, for 1995 the MEI was reduced by 2.7 percentage points for surgical and other nonsurgical services. No reduction was taken for primary care services.

system or in the economy as a whole. Over time, it will lead to unrealistic performance standards. Finally, the current VPS system makes year-to-year comparisons between performance standards and actual expenditure growth. Adjustments to the conversion factor reflecting these changes are not made until two years later. This approach fails to capture shortfalls and surpluses that occur during these intervening years and thus, does not fully account for all Medicare spending for physician services.

The Commission's recommendations for improving the VPS system are designed to eliminate each of these major limitations in the default formulas. First, the Commission has recommended returning to a single performance standard and update. In addition, performance standards should be linked to the projected growth in real GDP per capita, instead of the historical trend for volume and intensity growth and a 4 percentage point reduction. If these recommendations are adopted, the method for determining the conversion factor update should be changed to be based on a comparison of total actual spending and total targeted spending accumulated since a base year. In addition, limits should be set so that both reductions and increases from the MEI in a given year are restricted to 5 percentage points. Each recommendation for improving the VPS system is individually discussed below, along with the specific limitation it addresses.

A Single Standard and Update

The Commission has recommended a single performance standard and update for all physicians' services to avoid distortions in relative payments away from the resource-based relative value scale.⁵ This would ensure that each RVU would receive the same payment, regardless of the category of service. Currently, separate performance standards and updates are determined for each service category, so that each receives a differential update based on the historical trend for volume and intensity and on how much that category exceeds or falls below its target. As a result, an RVU in one service category is no longer paid the same amount as an RVU in another category.

Using a single standard and update would eliminate the differences in payment across categories. Under a single standard and update, the 1995 conversion factor would be \$36.63 per RVU, representing an 18 percent gain since 1992 across all services (Table 3-4).

Table 3-4. Estimates of Conversion Factors Under a Policy of One Category of Service Compared to Current Policy, 1992-1995 (dollars)

Year	One Conversion Factor	Current Policy		
	All Services	Surgical	Primary Care	Other Nonsurgical
1992	31.00	31.00	31.00	31.00
1993	31.44	31.96	31.25	31.25
1994	33.63	35.16	33.72	32.90
1995	36.63	39.45	36.38	34.62

SOURCE: Physician Payment Review Commission analysis.

⁵ See Chapter 2 for a further discussion of the effect of this distortion on the Medicare Fee Schedule.

Returning to a single category of service should be accomplished in a budget-neutral manner. That is, this policy should redistribute payment across categories without increasing or reducing spending. This might be accomplished by establishing differential updates that would bring each category of service to a common conversion factor. Because of the wide dispersion in conversion factors that has already occurred, it may also be appropriate to move to a single category of service over a few years, to prevent any category from experiencing a large one-time increase or decrease.

The distortion of relative payments is further exacerbated by the method the Health Care Financing Administration (HCFA) uses to determine the performance standards under the default formula. Although OBRA90 requires the use of separate five-year historical trends to estimate the growth in volume and intensity for each category of service, HCFA uses a single historical trend in volume and intensity growth for all services combined. As a result, the performance standard for each category of service reflects a single pooled historical trend in volume and intensity growth rather than the growth for that particular category of service.

Using a single pooled trend instead of separate trends leads to more favorable updates for the category with the lowest rate of volume and intensity growth. For this category, the pooled historical trend results in a higher target than it would have had otherwise. When the conversion factor update is determined two years later, the separate expenditure growth rate for this category of service is compared to the target based on the pooled historical trend. Again, the category of service with the lowest rate of volume and intensity growth compares more favorably to its target, and thus receives a higher reward or a lower penalty relative to the other categories of service.

Use of a pooled historical trend therefore leads to an ever-increasing distortion in relative payments across service categories. In 1995, for example, payments for surgical services are \$39.45 per RVU, while those for primary care are \$36.38 and for other nonsurgical services, \$34.62. This discrepancy across categories of services becomes systematic because surgical services, which have the lowest five-year historical trend in volume and intensity growth, in most years will compare favorably to the pooled historical trend and thus get higher updates than are warranted. Eventually, the discrepancy between surgical services and primary care services may become large enough to erase the relative gains for primary care and other evaluation and management services that were integral to physician payment reform.

If the Congress decides to maintain separate performance standards, the Commission urges it to direct HCFA to base the default formula for performance standards on separate five-year historical trends for each category of service. If separate historical trends had been used to determine the performance standards, there would have been less distortion to the relative payments (Table 3-5). For example, in 1995, surgical services would have been paid \$37.87 per RVU instead of \$39.45. Primary care services would have been paid \$35.82 per RVU rather than \$36.38, and other nonsurgical services would have received \$35.32 instead of \$34.62. The overall gain for surgical services over the four-year period (1992 to 1995) would have been 22 percent compared with a 16 percent gain for primary care services.

Table 3-5. Estimates of Conversion Factors Under a Policy Using Separate Historical Trends Compared to Current Policy, 1992-1995 (dollars)

Year	Separate Historical Trends			Current Policy		
	Surgical	Primary Care	Other Nonsurgical	Surgical	Primary Care	Other Nonsurgical
1992	31.00	31.00	31.00	31.00	31.00	31.00
1993	31.96	31.25	31.25	31.96	31.25	31.25
1994	35.02	32.85	33.24	35.16	33.72	32.90
1995	37.87	35.82	35.32	39.45	36.38	34.62

SOURCE: Physician Payment Review Commission analysis.

In addition, differential updates for the three categories of service should be applied for only one year at a time, if separate categories of service are retained. The following year's updates would be applied to a single conversion factor for all categories of service, rather than to each of the three separate conversion factors. This would prevent conversion factors from diverging over time, although differential updates for each category of service are used.

Linking Performance Standards to GDP Growth

Since 1990, the Commission has recommended that performance standards be linked to projected growth of real GDP per capita rather than to historical trends. In developing its annual recommendations for performance standards, the Commission determined that a realistic and affordable goal would be for growth in volume and intensity of physicians' services to be lowered gradually to projected real GDP growth per capita plus an additional 1 or 2 percentage points to allow for higher rates of growth due to advancements in medical capabilities.⁶

As described earlier, the performance standards are currently based on the five-year historical growth in volume and intensity, with a deduction of 4 percentage points to slow spending. Embedding a fixed deduction within the formula for the performance standards is an inflexible approach that reflects changes in neither medical practice nor the economy as a whole. The 4 point reduction applies even though the growth rate between 1991 and 1993 fell to its lowest two-year rate since 1985. In effect, the formula demands that, regardless of how much physicians restrain the number and intensity of services, they must further reduce volume and intensity by an additional 4 percentage points each year or pay a penalty in lower fees. In addition, the current deduction of 4 percentage points cannot be lowered because doing so would be scored in the budget process as increased spending. Current budget rules would then require that the higher spending be offset either by raising tax revenues or making spending cuts elsewhere.

⁶ Projected GDP growth is used because it represents the economy's capacity to grow. Historical trends are avoided because they reflect business cycles. A per capita rate is used because growth in Medicare enrollment is accounted for in the performance standard formula.

Moreover, using the historical growth rate of volume and intensity to determine performance standards undermines incentives for controlling volume. High or low expenditure growth eventually becomes part of the historical trend that determines the performance standard. That is, a reduction in volume and intensity growth will lead to an increase in fees in the short term, but will also lower how much volume and intensity growth is allowed in the longer term.

Due to the use of the five-year historical trend combined with the 4 percentage point deduction, reductions to the conversion factor are expected to occur each year beginning in 1997 (Table 3-6). The size of each year's reduction will depend on the future rate of growth in volume and intensity, however.⁷ If volume and intensity growth rises to 6 percent per beneficiary under current policy, updates would reduce conversion factors by between 2 percent and 3 percent each year from 1997 to 2005. The large VPS penalties would occur because performance standards would be low, reflecting the decline in actual rates of volume and intensity growth of the early 1990s. Although the historical trend would be quite low, the deduction of 4 percentage points built into the performance standard formula would continue to apply, drastically reducing the performance targets. Because the 4 percentage point reduction is a permanent part of the formula, no matter how low expenditure growth goes, there is an expectation that it must drop further.

Even under scenarios of a slowdown to 4 percent or 3 percent, volume and intensity growth rates would be too high, and fee reductions would result (Table 3-6). That is, even a permanent reduction to half of the volume and intensity growth experienced in the late 1980s would lead to continued reductions in the conversion factor.

These findings highlight another circumstance where the default formula produces results that cannot be sustained over the long term. Under any scenario that projects a steady rate of volume and intensity growth, such as the slowdowns to 3 percent and to 4 percent, the five-year historical trend used to determine the performance standard eventually equals the actual trend. The default formula for the performance standard, however, continues to deduct 4 percentage points. The update to the conversion factor, therefore, would remain -2 percent indefinitely because a VPS penalty of 4 percentage points would be taken from the MEI (2 percent in the model) (Table 3-6). Regardless of the eventual level of growth in volume and intensity, these reductions would persist as long as there was no change in the rate of growth. That is, the 4 percentage point deduction would result in fee updates of -2 percent, whether volume and intensity growth leveled off at 10 percent or 1 percent.

⁷ The projections of updates and conversion factors in this analysis depend on several assumptions. First, it was assumed that performance standards and updates legislated for 1995 would continue to apply, so the impact of revisions to the default formula do not become evident until 1998. Projections were made for three scenarios for growth of volume and intensity per enrollee. The scenario of an increase of 6 percent reflects a gradual increase from current rates up to 6 percent per year. Scenarios of 3 percent and 4 percent are presented to reflect recent declines in volume and intensity growth. In the analyses, a steady trend is reached sooner under scenarios of 3 percent and 4 percent than it is for 6 percent. The MEI is assumed to be 2 percent and enrollment growth is assumed to be 1 percent. These simulations are not meant to make precise estimates of future spending, which is the responsibility of the Congressional Budget Office and HCFA's Office of the Actuary. For example, these models do not incorporate behavioral responses to price changes. These simplified models are merely meant to illustrate the impact of options and allow for general comparisons.

Table 3-6. Estimates of Updates Under a Policy Using Growth in Gross Domestic Product Compared to Current Policy for Various Volume and Intensity Growth Rates, 1996-2005 (percentage)

Year	Current Policy			Policy Based on GDP Plus 2 Percentage Points		
	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent
1996	4.3	4.6	5.6	4.3	4.6	5.6
1997	-2.2	-2.2	-1.2	-2.2	-2.2	-1.2
1998	-3.0	-3.0	-3.0	-0.7	1.5	2.5
1999	-3.0	-3.0	-3.0	-0.4	1.5	2.5
2000	-3.0	-3.0	-2.8	-0.5	1.5	2.5
2001	-2.7	-2.0	-2.0	-0.5	1.5	2.5
2002	-2.5	-2.0	-2.0	-0.5	1.5	2.5
2003	-2.0	-2.0	-2.0	-0.5	1.5	2.5
2004	-2.0	-2.0	-2.0	-0.5	1.5	2.5
2005	-2.0	-2.0	-2.0	-0.5	1.5	2.5

SOURCE: Physician Payment Review Commission analysis.

The Commission has recommended linking performance standards to projected real GDP growth per capita instead of the historical trend in volume and intensity growth. A GDP growth rate plus 1 or 2 percentage points is realistic and affordable, and can be sustained over the long term. In the following simulations, projected real GDP growth per capita is assumed to remain at 1.5 percent. (These simulations are summarized in Table 3-6 and Table 3-7.)

Under a scenario where volume and intensity growth rates increase to 6 percent, using the proposed policy of GDP growth plus 2 percentage points instead of the current policy would also result in negative conversion factor updates (Table 3-6). Payments would be lower in every year after 1997. Reductions would occur because volume and intensity growth rates of 6 percent would compare unfavorably to 3.5 percent (GDP growth per capita plus 2 percentage points) used to determine the performance standards.

If volume and intensity growth slowed to 4 percent permanently, performance standards based on GDP growth plus 2 percentage points would lead to annual updates of 1.5 percent, the result of penalties of 0.5 percent combined with a 2 percent allowance for the MEI (Table 3-6). If growth slowed to 3 percent, a 0.5 percent VPS reward would lead to updates of 2.5 percent.

Under the current default formula, conversion factors would be reduced to about \$31.00 or less by 2005 (Table 3-7). If volume and intensity growth rates rose to 6 percent, the conversion factor would be \$29.84 in 2005. After adjusting for inflation, this would be equivalent to \$23.17 in 1995 dollars. Under a policy based on GDP growth plus 2 percentage points instead of the five-year historical trend and the 4 percentage point deduction, the conversion factors would be higher. If volume and intensity growth rates reached 6 percent, the conversion factor would fall gradually to \$35.17 by 2005. Under a slowdown of growth in volume and intensity to 4 percent per beneficiary and a policy using GDP growth plus 2 percentage points, conversion factors would gradually increase to \$41.37 in 2005, and to \$45.77 under a slowdown to 3 percent.

Table 3-7. Estimates of Conversion Factors Under a Policy Using Growth in Gross Domestic Product Compared to Current Policy for Various Volume and Intensity Growth Rates, 1996-2005 (dollars)

Year	Current Policy			Policy Based on GDP Plus 2 Percentage Points		
	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent
1996	37.49	37.60	37.97	37.49	37.60	37.97
1997	36.66	36.77	37.50	36.66	36.77	37.50
1998	35.56	35.66	36.38	36.39	37.30	38.46
1999	34.49	34.59	35.28	36.24	37.85	39.43
2000	33.46	33.56	34.29	36.07	38.42	40.41
2001	32.54	32.88	33.61	35.90	38.99	41.43
2002	31.74	32.22	32.94	35.72	39.57	42.48
2003	31.09	31.57	32.28	35.54	40.16	43.54
2004	30.45	30.94	31.63	35.35	40.76	44.64
2005	29.84	30.32	31.00	35.17	41.37	45.77

SOURCE: Physician Payment Review Commission analysis.

NOTE: These conversion factors are not adjusted for inflation.

Linking performance standards to projected real growth in GDP per capita plus 1 or 2 percentage points may lead to increased spending over the current policy. Because a revision is essential for making the VPS system sustainable, alternative strategies for offsetting the increased spending should be considered. One alternative would be to take a one-time reduction in the conversion factor that would make adopting the revised policy budget neutral. A second alternative would transition from GDP growth less 1 percentage point to GDP growth plus 1 or 2 percentage points over a five-year period. For example, this might entail GDP growth less 1 percentage point for the first three years, GDP growth with no additional factor for the next two years, and a policy of GDP growth plus 1 or 2 percentage points thereafter. A third alternative is discussed below.

Adjusting Conversion Factors to Achieve Spending Targets

The Commission has recommended modifying how conversion factor updates are set so they would reflect comparisons of total actual spending with total targeted spending since a base year, rather than year-to-year comparisons of performance standards and annual expenditure growth. This method can be likened to a banking mechanism that maintains a running balance across all the years since the account began. Under this approach, a target amount of spending would be determined for each year. Then, the total amount of targeted spending accumulated over all years since the base year would become the target budget. If actual spending since the base year exceeded the targeted amount, the conversion factor would be reduced to bring actual spending in line with the target, and to recoup all excess spending. On the other hand, if spending fell below the target, the conversion factor would be increased, returning the shortfall through higher payment levels.

This method for setting the conversion factor each year, often referred to as the cumulative VPS approach, is an improvement over the current one because it would recover spending surpluses and shortfalls not accounted for currently. The current approach adjusts for differences between actual expenditure growth and the target rate of growth for a single year, and forgives any excesses or shortfalls in spending that accrue in the prior two years. For example, the Medicare program expects to spend about \$40 billion for physician services in 1995. If volume and intensity growth is 1 percent higher than anticipated, spending will be \$40.4 billion, \$0.4 billion more than planned. Under current policy, the conversion factor would be reduced two-years later to bring annual spending back to target levels. If, for instance, over the two year period, expenditures were frozen to the 1995 targeted level, the current policy would reduce the conversion factor so that total spending in 1997 was \$40 billion. The cumulative approach, on the other hand, would further reduce the conversion factor to recoup the \$0.8 billion in excess spending that occurred during the two-year period, 1995 and 1996.

The Commission recommends this policy only if the other VPS issues are resolved, that is, if a single performance standard and update are adopted, and the performance standard is linked to projected growth in real GDP per capita. Simulations of the cumulative approach are discussed below. These scenarios assume that all the recommendations are adopted, and that the implementation problems, discussed more fully in the next section, are resolved.⁸

How the Commission's recommendations affect payment will depend on the future rate of growth in volume and intensity. In the simulations, results are shown for scenarios of volume and intensity growth of 3 percent, 4 percent, and 6 percent per beneficiary. Under the scenarios of 6 percent and 4 percent growth, respectively, actual spending would exceed the target because volume and intensity growth per beneficiary would be greater than GDP growth per capita plus 2 percentage points, or 3.5 percent. In particular, with a 6 percent growth rate, the discrepancy between the target and actual expenditures would be so large that reductions to the conversion factor would occur in each year after 1996 except in the year 2000 (Table 3-8). Conversion factors would fall below \$35 after 1998 under this scenario (Table 3-9). These reductions, however, would be less than under current policy.

If volume and intensity grew to 4 percent—moderately faster than the GDP growth-linked target—conversion factors would fall to a low of \$37.11 in 1999, and then rise gradually to \$41.20 in 2005 (Table 3-9). Although volume and intensity growth would be higher than targeted rates of growth, conversion factors would increase because of allowances for the MEI and enrollment growth. On the other hand, if volume and intensity growth per beneficiary were held below the target rate, the shortfalls that accrued would be returned through increases to the conversion factor. In the scenario of 3 percent growth, for example, conversion factors would rise steadily to \$46.13 in 2005.

⁸ The Commission has benefited from the development of the methodology for the cumulative approach by Bill London in HCFA's Office of the Actuary. The simulations presented in this section incorporate this methodology.

Table 3-8. Estimates of Updates Under a Policy Incorporating All Volume Performance Standard Recommendations Compared to Current Policy for Various Volume and Intensity Growth Rates, 1996-2005 (percentage)

Year	Current Policy			Policy Incorporating All VPS Recommendations		
	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent
1996	4.3	4.6	5.6	4.0	4.4	5.4
1997	-2.2	-2.2	-1.2	-3.0	-3.0	-0.6
1998	-3.0	-3.0	-3.0	-3.0	0.6	2.7
1999	-3.0	-3.0	-3.0	-3.0	1.4	1.2
2000	-3.0	-3.0	-2.8	1.9	2.8	4.1
2001	-2.7	-2.0	-2.0	-0.2	1.6	2.6
2002	-2.5	-2.0	-2.0	-0.3	1.5	2.4
2003	-2.0	-2.0	-2.0	-0.3	1.6	2.6
2004	-2.0	-2.0	-2.0	-0.5	1.5	2.4
2005	-2.0	-2.0	-2.0	-0.4	1.5	2.5

SOURCE: Physician Payment Review Commission analysis.

Table 3-9. Estimates of Conversion Factors Under a Policy Incorporating All Volume Performance Standard Recommendations Compared to Current Policy for Various Volume and Intensity Growth Rates, 1996-2005 (dollars)

Year	Current Policy			Policy Incorporating All VPS Recommendations		
	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent	Increase to 6 percent	Slowdown to 4 percent	Slowdown to 3 percent
1996	37.49	37.60	37.97	37.39	37.50	37.87
1997	36.66	36.77	37.50	36.27	36.38	37.63
1998	35.56	35.66	36.38	35.18	36.60	38.65
1999	34.49	34.59	35.28	34.12	37.11	39.13
2000	33.46	33.56	34.29	34.78	38.16	40.74
2001	32.54	32.88	33.61	34.69	38.78	41.81
2002	31.74	32.22	32.94	34.58	39.38	42.81
2003	31.09	31.57	32.28	34.48	40.00	43.94
2004	30.45	30.94	31.63	34.31	40.59	45.02
2005	29.84	30.32	31.00	34.17	41.20	46.13

SOURCE: Physician Payment Review Commission analysis.

NOTE: These conversion factors are not adjusted for inflation.

Problems of Implementation. Three challenges must be overcome in implementing the cumulative VPS approach. First, a new default formula for determining the conversion factor update would be needed. Performance standards per se would no longer be necessary, but would be replaced with a methodology for setting target levels of spending. Second, the new default formula must be designed to reduce volatility in the annual updates that could occur under this approach. This could be accomplished either by shortening the delay before updates are

determined, or by incorporating a smoothing adjustment that recaptures spending over several years. Finally, in the first year of implementation, the target level of spending should allow for previous fee increases in excess of the MEI in order to avoid penalizing physicians for these increases.

Development of New Default Formulas. The simplest method of implementation would merely substitute comparisons of total actual spending and total targeted spending since a base year for the annual comparisons of performance standards and actual expenditure growth used currently. This method is incorrect, however, because it would not appropriately adjust for the two-year delay before the fee update occurs. Consequently, the method would lead to a permanent oscillation between fee reductions and increases as each year's update attempts to correct for the prior year's overestimation.⁹

Implementation of the cumulative approach thus requires developing a new default formula for the conversion factor update. One possible formula would take into consideration the two-year delay and the effect of the prior year's adjustment for spending.¹⁰ Alternatively, the default formula could be based on the most recent information available. The delay before updates are determined could be shortened by using less complete information or projections for total actual spending. Additional spending not reflected in the estimates of spending in one year could be captured in the next, because the cumulative VPS method accounts fully for all Medicare outlays for physicians' services.

Reduction of Volatility in Updates. The new default formula should also incorporate some method for reducing the volatility of conversion factor updates under the cumulative approach. Inherent variability in volume and intensity growth can result in volatility in the annual updates. The cumulative approach would increase this volatility because it would recoup surpluses and shortfalls. For instance, if volume and intensity grew more than anticipated, this approach not only would lower the conversion factor to align actual annual spending with targeted annual spending, but would reduce the conversion factor even further to capture the excess spending from the previous two years. Once the excess spending had been recouped, the conversion factor would be readjusted to the level needed to make actual spending equal targeted spending in subsequent years.

There are several ways to reduce volatility. One is to set upper and lower limits on the size of increases or reductions to the MEI when setting conversion factor updates. Currently, reductions to

⁹ In the example presented earlier, a 1 percent increase in volume and intensity growth would raise spending by \$0.4 billion. If the cumulative method did not adjust for the two-year delay, the 1997 update would correct for the \$0.4 billion in excess spending in 1995. Then in the following year, the 1998 update would correct for \$0.8 billion in excess spending for 1995 and 1996, not taking into account the correction that would have been made in 1997. Combined, the two adjustments in 1997 and 1998 would recover \$1.2 billion instead of the \$0.8 billion in actual excess spending. Adjustments in later years would attempt to rectify this, resulting in successive reductions and increases in the updates over time.

¹⁰ The Office of the Actuary has developed a method that accomplishes this.

the MEI are limited to 5 percentage points. The Commission recommends making this limit symmetric by applying it equally to both increases and reductions to the MEI. Any amount of spending over these limits would be accounted for in subsequent years. Limits smaller than 5 percentage points would defer repayment of surpluses or shortfalls over longer periods. Wider limits, on the other hand, would permit larger annual changes in the conversion factors.

Volatility in the conversion factor updates can be further reduced by including a smoothing adjustment in the formula for the cumulative approach.¹¹ This adjustment could spread the effect from missing the target over several years. Again, the choice of a smoothing adjustment requires a trade-off between volatility and how quickly surpluses and shortages are recaptured.

Transition to the Cumulative Approach. Consideration must also be given to a transition from current policy to the cumulative approach. Under existing policy, physicians are held responsible only for growth in the volume and intensity of services. Performance standards are based on target rates of volume and intensity growth and estimates of actual growth for all of the other factors that drive spending. For example, performance standards now allow for higher spending caused by increased payment levels.

Under the cumulative approach, however, a target budget for a given year would be set. This could be determined by deciding how much spending should grow above the previous year. When fully implemented, increases in spending could reflect projected growth in real GDP per capita plus 1 or 2 percentage points, the MEI, enrollment, and growth due to changes in law and regulation. In the first year of implementation, however, some allowance would be needed for payment changes that occurred in the prior year. Due to recent reductions in volume and intensity growth, the allowance would reflect payment increases considerably above the MEI.

If the cumulative approach were implemented in 1996 and the transition allowed for the prior year's fee increase, the performance standard for 1996 would be almost 13 percent. The conversion factor would be reduced by 3 percent per year in 1998 and 1999, assuming that volume and intensity grew to 6 percent per beneficiary. On the other hand, if the performance standard for 1996 only allowed for an increase of 2 percent in the MEI, instead of the prior year's fee increase, the performance standard would only be about 7 percent. This, in turn, would lead to reductions to the conversion factor of 3 percent per year from 1998 through 2003. That is, physicians would face four additional years of 3 percent fee reductions in order to repay the 1995 fee increase.

As discussed earlier, adopting the Commission's recommendations could result in increased spending. Because of current budget rules, it might not be feasible to adopt a default formula for the performance standard based on projected growth of real GDP per capita plus 1 or 2 percentage points. Linking performance standards to GDP growth, however, is crucial for making the VPS system

¹¹ A smoothing adjustment, developed by HCFA's Office of the Actuary, was incorporated into the simulations for the cumulative approach. This adjustment spreads the effect of missing the target over three years instead of two.

sustainable, while keeping Medicare outlays for physician services affordable. One option would be to lower the first year's target expenditures just enough to make the Commission's recommendations budget neutral.

REFERENCE

Board of Trustees, Federal Supplementary Medical Insurance Trust Fund, *Report to Congress: The 1994 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund*, Committee Print 103-229 (Washington, DC: Committee on Ways and Means, U.S. House of Representatives, April 1994).

PAYMENT RATES FOR MEDICARE AND PRIVATE PAYERS

Trends in Medicare and private insurer payment rates provide important information about the effects of Medicare payment policy. First, the gap between Medicare and private rates is a determinant of physicians' willingness to accept Medicare beneficiaries. Low Medicare payment rates are the principal source of physicians' dissatisfaction with Medicare, and too large a payment gap may limit Medicare beneficiaries' access to care (Emmons 1994). From 1989 through 1992, Medicare fee restraints widened the discrepancy in payment. Medicare rates fell from 71 percent to 61 percent of typical private rates. From 1992 to 1995, however, higher Medicare fee updates and lower inflation in private rates brought Medicare rates up to an estimated 68 percent of those of private insurers.¹

Second, Medicare's payment policies are significantly affecting private payers' rates and, in some cases, are being adopted by these payers. Most Blue Cross Blue Shield (BCBS) plans, as well as some commercial insurers and managed-care plans, now use Medicare's resource-based relative values for at least part of their payments.²

This chapter tracks recent changes in physician payment rates for the Medicare program and for private insurers. The first section outlines the data and methods used to compare them. Payment rates vary significantly among private payers. For traditional indemnity fee-for-service insurance, BCBS plans have typically paid somewhat lower rates than commercial insurers. Now, both BCBS and commercial plans offer a variety of options, including traditional indemnity, preferred provider organization (PPO), and health maintenance organization (HMO) products, each of which may offer different payment rates to physicians. In this chapter, claims and survey data are used to estimate the weighted average payment rate across this variety of private payer arrangements.

The second section of the chapter describes changes in private payers' rates for visits and other services. Because the Medicare Fee Schedule increased payment for visits relative to payments for tests and procedures, the gap between Medicare and private payment rates is now much smaller for visits than for other services. But private payers have been allowing their visit fees to rise while constraining fees for tests and procedures. The net effect of this has been a slow movement of private rates toward the Medicare relative values.

This comparison of Medicare and private rates offers three conclusions of policy relevance. First, the higher Medicare fee updates of 1994 and 1995, combined with modest private-sector fee inflation,

¹ This chapter examines fee-for-service rates, not capitation payment. Throughout the chapter, a payment rate (or fee) is defined as the total payment a physician receives for a service, not the amount the physician charges for that service.

² Appendix A provides a full discussion of the use of the resource-based relative values by payers other than Medicare.

have provided some breathing space for the Medicare program. The gap between Medicare and private rates is now estimated to be significantly smaller than it was three years ago. But this is probably only a temporary respite: The Medicare Volume Performance Standard (VPS) system is likely to result in significant Medicare fee reductions for the rest of the decade (see Chapter 3). The gap between Medicare and private rates will probably begin to grow again after 1995.

Second, one of the effects of the Medicare Fee Schedule has been to narrow the gap between Medicare and private payment rates for primary care services such as visits, while increasing the gap for tests and procedures. That was a reasonable policy from the standpoint of access to care: Medicare beneficiaries complaints about access center around primary care providers, not specialists and surgeons (see Chapter 1). The fee schedule has helped keep Medicare rates a bit more competitive in the area that is most key to maintaining access to care.

Third, a growing number of private insurers are adopting Medicare's relative value scale in some form. The net effect is that private payers are slowly moving payment rates toward Medicare's relative values, which modestly reinforces the Medicare Fee Schedule's shift of revenues toward primary care and away from tests and procedures. This shift should help make primary care practice somewhat more financially attractive to physicians, and may begin to increase the proportion of U.S. physicians choosing primary care practice (see Chapter 14).

ESTIMATING THE GAP BETWEEN MEDICARE AND PRIVATE PAYERS' RATES

This section outlines the methods used to estimate the size of the 1995 gap between Medicare and typical private rates. The Commission's private payer claims database provided an estimate of average 1993 rates for indemnity and PPO payers. This estimate was adjusted for fee-for-service payments by HMOs based on payment rate data reported in a Commission-sponsored survey of managed-care plans (Gold et al. 1995). The estimated 1993 payment rate gap was then projected to 1995, assuming no inflation of private payers' rates.³

In its 1994 annual report, the Commission estimated that Medicare's 1994 rates were 59 percent of the average private insurers' rates, which is quite different from the 1995 estimate of 68 percent (PPRC 1994). Five percentage points of the difference are due to the use of more recent data showing a reduction in inflation of private payment rates after 1991, and inclusion of a correction for HMO payments. The correct 1994 estimate should have been 64 percent. The older estimate of 59 percent is outdated and should no longer be used. The remaining 4 percentage points of the difference between the 1994 and 1995 estimates is the result of the high 1995 Medicare fee update.

³ The second section of this chapter shows that private payers' inflation declined from 6 percent in 1990 to less than 1 percent in 1993. A continuation of this trend suggested zero inflation after 1993. Actual post-1993 private-sector payment rates are not yet available.

Physicians' Reported Revenue Sources

Contrasting Medicare to the average of private payers requires information on the proportion of physicians' revenues from various payers. This section draws on the American Medical Association (AMA) Socioeconomic Monitoring System (SMS) to describe physicians' reported revenue sources in 1993.

Medicare is the largest single purchaser of physicians' services in the United States. Payments directly from the Medicare program account for just over one-quarter of physicians' gross revenues (Table 4-1).⁴ This share varies considerably by physician specialty: Medicare accounts for less than 2 percent of pediatricians' revenues, but nearly half of ophthalmologists' and cardiologists' revenues, for example (Table 4-2).

Although no single private payer is as large as Medicare, private payers as a group are a more important revenue source than Medicare. Nearly half of physicians' gross revenues come from payments made directly by private insurers (Table 4-1). Payments from Medicaid and payments directly from patients account for the rest of gross revenues.

The distinction between Blue Cross Blue Shield and commercial insurers is important for estimating average rates paid by private insurers. BCBS plans typically pay lower rates than the average commercial insurer, so that any accurate estimate of average private payment rates needs to account for these two types of private insurers separately. BCBS plans account for slightly more than one-third of private third-party payments, with commercial insurers and others accounting for the remaining two-thirds (Table 4-1).

Table 4-1. Physicians' Revenue Sources, by Payer, 1993 (percentage)

Payer	Revenues From All Sources	Revenues From Private Insurers
Medicare	26.1	*
Medicaid	11.0	*
Blue Cross Blue Shield	16.3	34.2
Other Private Payers	31.3	67.8
Patients	15.6	*
Total	100.0	100.0

SOURCE: American Medical Association Physician Marketplace Statistics 1993.

* Not applicable.

NOTE: Percentages do not add to 100 due to rounding.

⁴ Payments made directly by patients to physicians (for example, copayments or revenues from self-pay patients) are tracked separately in the SMS, and are not included in the Medicare total.

Table 4-2. Physicians' Revenue From Medicare, Selected Specialties, 1993 (percentage)

Specialty	Revenue
Pediatrics	1.6
Obstetrics/Gynecology	7.1
Psychiatry	12.0
Orthopedic Surgery	21.5
General/Family Practice	24.1
Anesthesiology	28.4
Pathology	31.6
Radiology	31.9
General Surgery	34.0
General Internal Medicine	38.0
Urology	44.2
Cardiology	46.5
Ophthalmology	48.1

SOURCE: American Medical Association Physician Marketplace Statistics 1993.

While the difference between BCBS and commercial insurers has traditionally been one major source of payment rate variation among private payers, the growth of managed care plans has added another source of rate variation. Physicians receive a significant and growing share of income from HMOs and PPOs, both of which may discount their rates below the average of traditional indemnity insurers.

Although some HMO and PPO payments are in the form of capitation, most are discounted fees. Based on preliminary and unpublished AMA data, roughly 72 percent of payments from HMOs other than independent practice associations (IPAs), 83 percent of payments from IPA-type HMOs, and 91 percent of payments from PPOs are some form of fee-for-service arrangement (Table 4-3). HMO fee (noncapitation) payments accounted for approximately 10.3 percent of physicians' total gross 1993 revenues (Table 4-3).

Table 4-3. The Share of Physicians' Managed-Care Revenue That Is Fee For Service, 1993

Type of Plan	Percentage of Physicians With Any Contract (A)	Percentage of Physicians' Revenue For A Contract (B)	Percentage of Contract Revenue That Is Fee For Service (C)	Fee-For-Service Revenue From Plans As A Percentage of All Revenue (A*B*C)	Fee-For-Service Revenue From Plans As A Percentage of All Private Insurer Revenue
Independent Practice Association HMO	26.0	14.5	83.0	3.1	6.5
Other HMO	47.7	21.0	72.0	7.2	15.1
Preferred Provider Organizations	64.5	20.8	91.0	12.2	25.6

SOURCE: American Medical Association Physician Marketplace Statistics 1993. Data on percentage of payment that is fee-for-service is from preliminary unpublished American Medical Association data.

Calculating the average private payment rate requires taking a weighted average of the payment rates from three sources: HMOs, BCBS indemnity and PPO business, and commercial insurer indemnity and PPO business. HMOs account for 22 percent of revenues from private payers. Of the remaining 78 percent of private payments, roughly one-third is assumed to come from BCBS plans, and two-thirds is assumed to come from commercial insurers.

The Commission's Indemnity/PPO Private Payer Data

To track changes in the private sector, the Commission has assembled a multiyear, multipayer physician payment database. The database currently captures the experience of more than 10 million privately insured individuals, and includes indemnity and PPO claims.

This database contains physicians' claims and enrollment data compiled from three independent national sources. These are the Federal Employee Program (FEP) of the Blue Cross Blue Shield Association, a major national commercial insurer, and the MEDSTAT Marketscan database. The Commission plans to continue to update these files as more recent claims data become available.⁵

FEP. The FEP provides coverage for federal employees, retirees, and dependents through BCBS plans across the country. Program coverage is a preferred provider organization (PPO), with payment levels determined by screens the local BCBS plans use. The database contains claims and enrollment information for 1989 through 1993, obtained as extracts that prevent identifying individuals or BCBS plans.

A Major Commercial Insurer. A major national commercial insurer supplied claims and enrollment data for its indemnity and PPO lines of business, with several million covered lives. Under the data use agreement, this insurer cannot be identified by name. The Commission's commercial insurer files run from 1990 through 1993.

MEDSTAT. The MEDSTAT Corporation gathers claims for employees of (primarily) Fortune 500 companies, and currently produces a physician claims dataset reflecting the experience of several million covered lives. The dataset that was included here contains a mixture of indemnity and PPO business for both BCBS and commercial insurers. The Commission's MEDSTAT files run from 1989 through 1992.

Strengths and Weaknesses of the Data. The most important advantage of this database is that the underlying claims data capture actual payments, not physicians' charges, and include the effects of all fee screens and discounts. Almost all payers now pay at some discount to charges, and the size of the average discount is growing as enrollment shifts away from indemnity insurance plans toward PPOs, HMOs, and other forms of managed care. Failure to account for the discounts from charges would significantly overstate both the level and growth of private payment rates.⁶

⁵ Throughout this analysis, payments for anesthesia services are excluded. Due to differences in the definition of units of service, it is very difficult to compare anesthesia payments across insurers.

⁶ The consumer price index, by contrast, uses list prices (charges), not discounted prices (payments). For this reason, the consumer price index significantly overstates inflation in hospital prices (Dranove et al. 1991). The analysis that follows suggests that the consumer price index similarly overstates inflation in physicians' fees.

Payment amounts include the copayments and deductibles paid directly by individuals enrolled in the plans. Payment amounts do not, however, capture balance billing — billing patients directly for charges in excess of insurers' fee screens. No systematic information is available on balance billing. Omission of balance billing amounts adds some uncertainty to the analysis because total payments to physicians may differ somewhat from the amounts captured on the claims. The average amount involved is probably small, however. For example, only 15 percent of physicians retain the option to balance bill enrollees in traditional BCBS plans (BCBSA 1994). Balance billing amounts may or may not be changing. On the one hand, balance billing might be growing as the gap between physicians' charges and private insurers' fee screens grows. On the other hand, it might be declining as enrollment shifts toward HMOs and PPOs where enrollees are shielded from balance billing when they use network physicians.

For all three sets of data, claims include both insurance and administrative-services-only contracts, and capture both indemnity and PPO business. The data exclude capitation or partial capitation HMO products. All three data sources are national in scope, with claims from all states.

This three-part database is the minimum needed to calculate a validated estimate of private payers' average indemnity/PPO payment rates. First, the FEP data are an excellent proxy for the level of BCBS payment rates nationwide.⁷ Second, the inclusion of a commercial insurer provides an estimate of the differential in payment rates between BCBS and commercial plans. Finally, the MEDSTAT data provide an internal validity check: The MEDSTAT payment rate level is close to the appropriate weighted average of the FEP and commercial data. In addition, the three data sources show similar trends, suggesting that they are capturing marketwide changes rather than the idiosyncracies of individual payers.

Reliance on just three data sources does add some significant caveats to the analysis. Results may differ from a true cross-section of the fee-for-service market. Regional, local, or insurer-specific activity may have a disproportionate effect on trends.⁸

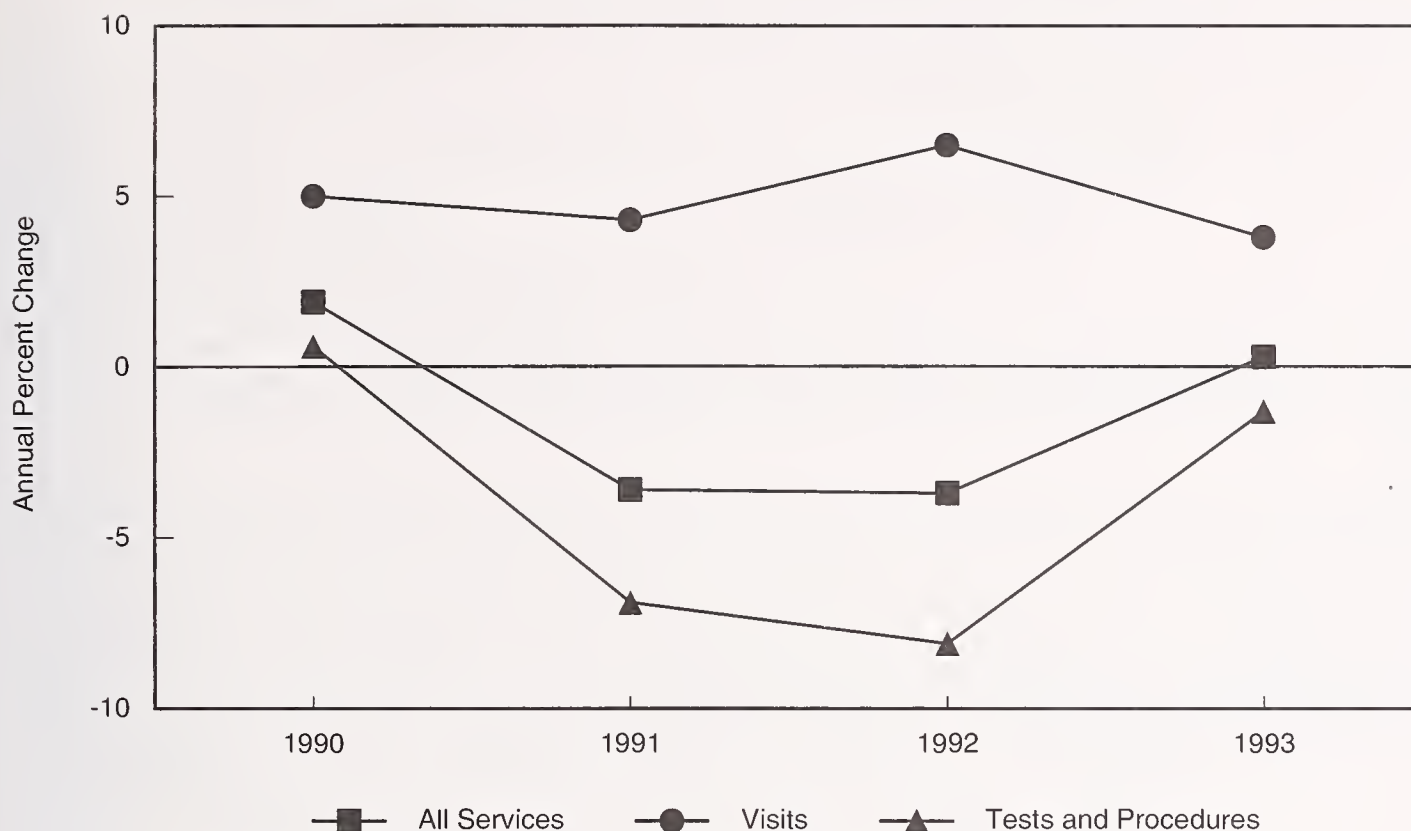
Recent Trends in Payment Rates

Medicare's payment changes over the 1990 to 1993 period have been well documented (PPRC 1994). There were broad rounds of cuts in 1990 and 1991, resulting in substantial reductions for many nonvisit services. This was followed by the first two years of the phase-in of the Medicare Fee Schedule in 1992 and 1993, which continued to raise visit payment rates while depressing payment rates for nonvisit services. On net, overall payment rate growth tended to be quite low over the 1990 to 1993 period, due mostly to significant reductions for Medicare rates for tests and procedures (Figure 4-1).

⁷ The level of fees from the FEP data closely track the level of fees estimated from a national BCBS summary database. See *Medicare Fee Update and Volume Performance Standards for 1994*, No. 93-1 (Washington, DC: PPRC, May 1993).

⁸ Although the data are not uniformly distributed across the country, reweighting the data to reflect the national population distribution by state affected estimated fee levels by less than 2 percent.

Figure 4-1. Medicare Fee Increases, All Services, Visits, Procedures and Tests, 1990-1993



SOURCE: Physician Payment Review Commission analysis of Medicare data.

For private payers, payment rate inflation slowed significantly over this period (Figure 4-2). Private payers moved from payment rate inflation of roughly 6 percent in 1990 to less than 1 percent in 1993. As was true for Medicare, most of the slowdown in private payers' growth is due to constraints on services other than visits. While increases for visits averaged nearly 4 percent in 1993, payment rates for tests and procedures actually fell slightly in 1993 (Figure 4-2).

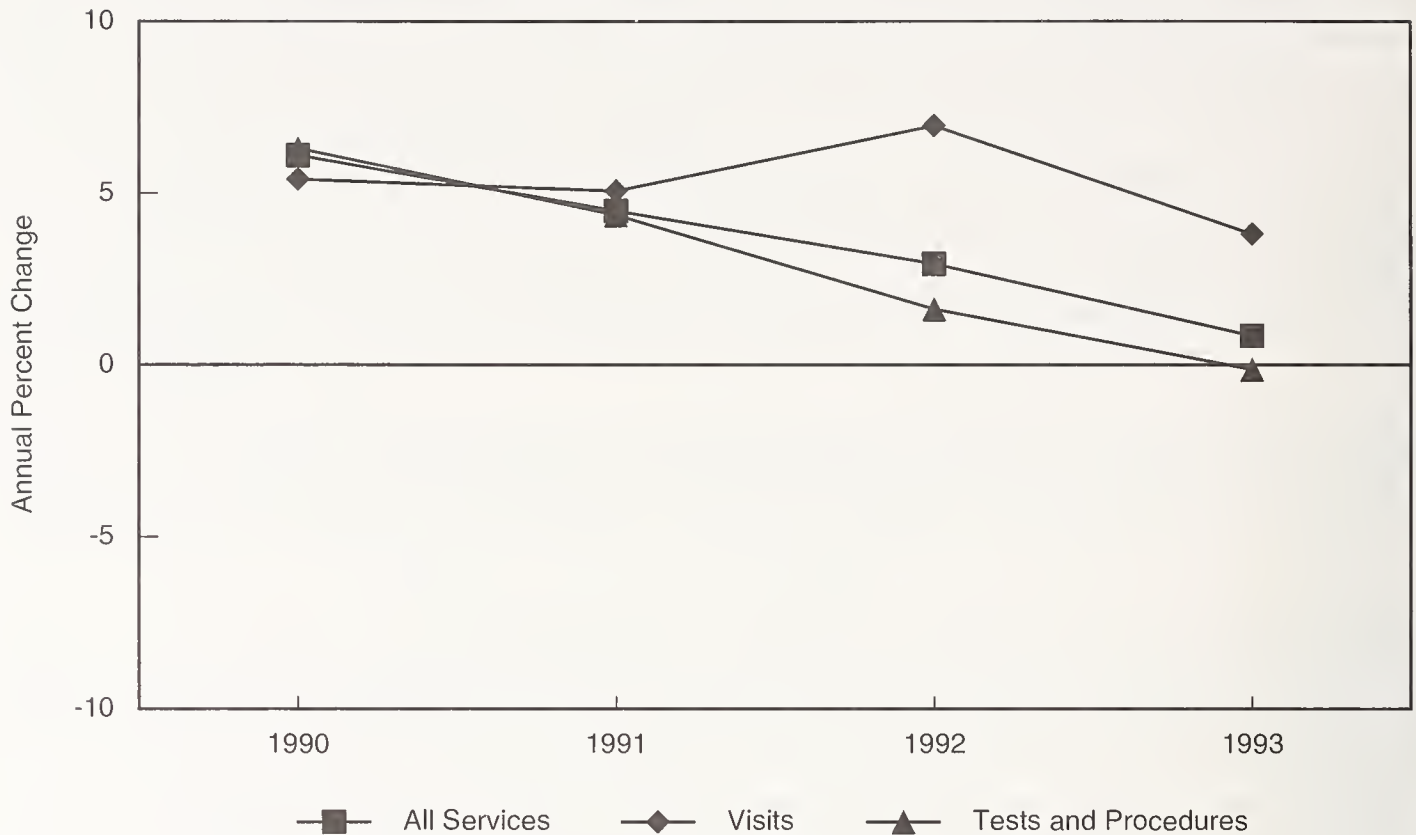
Estimating the Gap Between Medicare and Private Payers' Payment Rates

The Commission's private payer database provides a reasonable estimate of the gap between Medicare and private payers' indemnity/PPO rates in 1993. Extending this to an estimate of the current (1995) gap between Medicare and the average of all private payers' rates requires two separate adjustments.

First, while indemnity and PPO business still accounts for the bulk of physicians' payments from private insurers, fees from HMOs account for 22 percent of private third-party payments (Table 4-3). Excluding these payers from the analysis would result in an overestimate of the gap between Medicare and the typical private payer.

A 1994 Commission-sponsored survey of managed-care plans provides what appears to be the best hard data on payment rates for these payers. Of the 108 plans in the Commission's survey, 30 used a resource-based relative value scale based in whole or in part on the Medicare Fee Schedule (Gold et

Figure 4-2. Private Payers' Fee Increases, All Services, Visits, Procedures and Tests, 1990-1993



SOURCE: Physician Payment Review Commission analysis of private payer data.

al. 1995). For those 30 plans, a comparison between the Medicare conversion factor and the managed-care plans' conversion factor provides a comparison of average payment rate levels.⁹

None of the plans in the survey reported paying less than Medicare (Table 4-4). Some 20 percent of plans said they paid at the Medicare level, while the rest paid somewhat more to substantially more. Taking a weighted average of the answers to that survey, the typical plan paid 36 percent more than Medicare, or conversely, Medicare paid 74 percent of what these plans paid.¹⁰ That places these plans paying somewhat less than the typical Blue Cross Blue Shield plan, on average, and substantially less than the average of all other private payers. Including these HMO payments in the calculation narrows the estimated gap between Medicare and all private payers (indemnity/PPO/HMO) by 3 percentage points, relative to the gap between Medicare and indemnity/PPO payers alone.

Second, after accounting for HMO payments, the 1993 Medicare and private rates must be projected to 1995 levels to obtain an estimate of the current gap. For Medicare, 1994 claims data were used to

⁹ Without a common relative payment scale, estimating average fee levels would require gathering average payment data for perhaps a few hundred of the highest-dollar-volume services, clearly a much more difficult task than comparing conversion factors.

¹⁰ These plans were located in areas where Medicare rates were slightly above the national average, so Medicare may have paid slightly more than 74 percent of their rates.

Table 4-4. Conversion Factors for Managed-Care Plans Using a Resource-Based Relative Value Scale, 1994

Conversion Factor	Percentage of Plans
Lower than Medicare	0
Same as Medicare	20
Up to \$14 Higher than Medicare	44
\$15 to \$29 Higher than Medicare	28
Greater than \$29 Higher than Medicare	8

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

calculate the actual increase from 1993 to 1994 at 3.6 percent, while the payment rate increase for 1995 was estimated at 6.0 percent.¹¹ For private payments, zero net inflation was assumed for the years 1994 and 1995. While the rate of inflation measured in the Commission's database in 1993 was 1 percent, the trend in inflation between 1990 and 1993 was clearly down: 6 percent in 1990, 4 percent in 1991, 2 percent in 1992, and less than 1 percent in 1993. Given this recent trend and the continuing shift of enrollment away from indemnity insurance, an assumption of zero private inflation in 1994 and 1995 seemed a reasonable projection.

Based on these calculations, Medicare currently (1995) pays roughly 68 percent of average private payers' rates (Table 4-5). This is up significantly from its low of 61 percent in 1992, but is below the 1989 figure of 71 percent.

Table 4-5. Relationship Between Medicare and Private Payers' Rates, 1989-1995

Fee Index	1989	1990	1991	1992	1993	1994	1995
Medicare Fee Index (1989 = 100)	100	102	98	95	96	99	105*
Private Fee Index (Medicare 1989 = 100)	141	146	150	154	155	155*	155*
Ratio of Medicare to Private Fee Index	0.71	0.70	0.65	0.61	0.62	0.64*	0.68*

SOURCE: Physician Payment Review Commission analysis of Medicare and private payer claims data.

* Estimated.

NOTE: Fee index standardizes to Medicare fees in 1989.

¹¹ The 1995 conversion factor update was reduced by 1.7 percentage points (from 7.7 to 6.0) to approximate the net effect of several ongoing fee reductions. These include the overvalued practice expense fee reductions mandated in the Omnibus Budget Reconciliation Act of 1993, the continuing reduction in average fees due to transition toward a conversion factor that was set 6.5 percent below the historical fee level, and the initial miscalibration of the 1992 conversion factor.

Differences from Prior Estimates and Sources of Uncertainty

A comparison between the Commission's 1994 and 1995 estimates of the gap between Medicare and private payers' rates highlights two major caveats for interpreting the results. In its 1994 report, the Commission estimated that Medicare's 1994 rates were 59 percent of the average private insurer's rates. Using more recent data and better methods, Medicare is estimated to have paid 64 percent of private payers' rates in 1994. The high 1995 Medicare fee update narrowed this further to 68 percent in 1995.

Projecting inflation in private fees adds substantial uncertainty to the estimates. Last year's estimate was based on 1992 private payer data, inflated to 1994 levels at 3.4 percent per year, which was the average inflation rate observed in the Commission's private payer database from 1989 through 1992. Based on more recent data, actual 1993 payment rate inflation was less than 1 percent. This year's calculation assumes zero inflation for 1994 and 1995, based on the declining inflation observed in the data. This assumption is clearly subject to considerable uncertainty. Every percentage point by which the actual annual private sector rate of inflation in 1994 and 1995 exceeds zero would widen the 1995 gap by roughly 1.4 percentage points; conversely, an annual 1 percent rate of decline in 1994 and 1995 would reduce the gap by the same amount.

The impact of HMO payers adds another layer of uncertainty. Last year no correction for HMOs was used, because there was no reliable information on their payment levels. The current estimates are derived from 30 plans using a resource-based fee schedule, using broad ranges of conversion factors reported by the plans. Whether these plans represent average HMOs is unclear. If the actual average payment rates for all such plans were 1 percent lower than assumed, the estimated gap would shrink by roughly 0.15 percent. By contrast, if payment rates were 1 percent higher, the gap would increase by the same amount.

To demonstrate a plausible range of estimates, the 1995 payment gap was calculated under alternative scenarios. The current estimate of 68 percent is based on an assumption of no private fee inflation after 1993 and generally lower fee levels for HMO payers. If the correction for HMO payers is removed (in effect assuming that HMOs' rates are the same as the average of indemnity and PPO payers), this ratio would fall to 65 percent. If the assumption about inflation were changed, replacing the assumed zero post-1993 inflation with the 1993 figure of 1 percent, the ratio would fall to 67 percent. If both the HMO and inflation assumptions were changed, the ratio would fall to 64 percent.

PAYMENT RATES FOR PRIMARY CARE RELATIVE TO OTHER SERVICES

The introduction of the Medicare Fee Schedule has systematically altered the gap between Medicare and private rates across types of services. The Medicare Fee Schedule pays relatively more for visits and consultations, and relatively less for tests and procedures. It should not be surprising, then, that the gap between Medicare and private rates is much smaller for visits than for other services. In 1993,

Medicare visit fees averaged 70 percent of those paid by indemnity and PPO payers, while Medicare fees for tests and procedures averaged just 55 percent of these payers' indemnity/PPO rates.¹²

From the standpoint of access to care, this has been a reasonable policy. Medicare beneficiaries' complaints about access to care focus on primary care physicians, not specialists (see Chapter 1). Relative payment rate increases for primary care have been a way to keep Medicare somewhat more competitive where access problems have been most noticeable.

As noted in the previous section, private payers are on average modestly changing payment for visits relative to other services. Overall, private payment rates for visits continued to rise, while inflation in rates for tests and procedures fell dramatically between 1990 and 1993 (Figure 4-1). On average, the ratio of surgical fees to visit fees moved in the same direction for private payers as for Medicare, but to a much smaller extent (Table 4-6).

This slow movement of private-sector relative payments could arise from a variety of sources. Surveys by the Commission, the Blue Cross Blue Shield Association, the Health Care Financing Administration, and others have shown that private insurers and others are increasingly adopting Medicare's relative values. In 1994, about half of BCBS plans were using Medicare's relative values for at least part of their business, compared with only 8 percent in 1992 (BCBSA 1994). Perhaps one-fourth of managed-care plans used a resource-based relative value scale in setting rates for some or all physicians in 1994 (Gold et al. 1995). Commercial insurers remain less likely to adopt a resource-based fee schedule for setting payment screens (see Appendix A).

Although some payers are deliberately adopting Medicare's relative values, others might be moving their rates solely in response to changing market conditions. As Medicare pays less for procedures

Table 4-6. Changes in the Ratio of Surgical Payment to Visit Payment, Medicare and Other Payers, 1991 and 1993

Service	Medicare		Private Indemnity/PPO	
	1991	1993	1991	1993
Payment Per Service (Dollars)				
Total Hip Replacement	2113.55	1804.16	4004.71	4024.27
Cataract Surgery	1303.83	1093.76	2089.12	2062.48
Office Visit	30.03	32.69	41.65	44.55
Ratio of Surgical to Visit Payments				
Total Hip Replacement	70	55	96	90
Cataract Surgery	43	33	50	46

SOURCE: Physician Payment Review Commission analysis of Medicare and private claims data.

¹² These figures are calculated for indemnity and PPO payers only (rather than for all private payers) because there is no information on the payment rates for those HMOs that are not using resource based relative values.

and tests, for example, other payers may find they can also reduce their fees without losing access to those services. Conversely, private payers may be forced to increase rates for primary care physicians partly in response to higher remuneration by Medicare. Alternatively, the Medicare Fee Schedule and higher private fees for primary care services may just be different responses to the same underlying conditions. The fee schedule was adopted partly in response to a perceived shortage of primary care physicians—the same condition that should lead to market-driven increases in payments for primary care.

For whatever reason, private-sector fees are slowly moving toward Medicare's relative values. This will tend both to reinforce the fee schedule's impact on the distribution of revenues across specialties, and to reduce variation in the size of the gap between Medicare and private payment rates across different categories of services. These changes are already affecting the relative incomes of specialist and generalist physicians to a certain extent (see Chapter 14).

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MEDICARE RISK PROGRAM PAYMENT POLICY

The Medicare risk program was established to expand beneficiary choice of health plans and benefits and to contain Medicare costs through efficiencies gained by managed care. The Health Care Financing Administration (HCFA) contracts annually with health maintenance organizations (HMOs) and competitive medical plans (CMPs) to provide services for enrolled beneficiaries, for which the plans are paid on a capitated basis.¹ Medicare HMO capitation payments are based on the adjusted average per capita costs (AAPCCs) of Medicare fee-for-service beneficiaries.

The risk program has experienced two problems that have limited its value for Medicare. Only a small percentage of Medicare beneficiaries have been enrolled in Medicare HMOs and, until recently, enrollment rates have grown slowly. The program also has been found to achieve service efficiencies, yet it has increased Medicare per capita costs. Contributing to these problems are inadequacies of current risk program payment policies, as follows:

- payment rates that are tied to Medicare fee-for-service expenditures, so that low HMO costs do not result in savings for Medicare;
- wide geographic variation in HMO payment rates due to local variations in fee-for-service use patterns;
- volatility of payment rates over time for individual counties, particularly those with small Medicare populations;
- inadequate risk-adjustment methods; and
- freedom of HMOs to choose their payment method based on the health care needs and costs of their enrollees, which contributes to risk selection against the Medicare program.

RECOMMENDATIONS

Payment rates for Medicare health maintenance organizations (HMO) established through competitive bidding ultimately should replace payment rates based on adjusted average per capita costs (AAPCC) in markets with a sufficient number of HMOs

¹ For the remainder of the chapter HMO is used to refer to both HMOs and CMPs.

bidding to achieve price competition. HMOs with bids that exceed the established payment rate should be required to charge some or all of the balance of their bid to beneficiaries in the form of premiums. Implementation should begin in a small number of competitive Medicare HMO markets, adding markets as experience is gained and market conditions change. A maximum limit for established payment rates based on fee-for-service per capita costs should not be used.

The adjusted average per capita cost (AAPCC) payment method should be improved to establish more consistent and predictable payments to health maintenance organizations. Methods should be adopted to adjust for effects of service use variations on payment rates, such as an adjustment that blends the AAPCC with an input-price-adjusted national average per capita cost. To obtain payment rates that better reflect true geographic differences in per capita costs, and that have greater year-to-year predictability, alternatives to using the county as the basic unit for geographic adjustment should be considered. Other methods for improving the predictability of county-level AAPCCs also should be considered, including basing them partly on the county AAPCC and partly on the AAPCC for a larger area containing the county.

Partial capitation methods that ameliorate effects of risk selection should be tested in demonstration projects to evaluate the administrative feasibility of each model, and to obtain information for defining threshold levels and risk-share percentages.

In markets where competitive bidding is established, Medicare cost contracts should not be available. Where choice of Medicare contracts is offered, health maintenance organizations should be required to commit to the contract form they choose for more than one year.

Coordinated open enrollment should be established to offer beneficiaries full comparative information on Medicare health maintenance organizations (HMOs). In markets where competitive bidding is used, HMOs should report any premium charged to beneficiaries for the basic package of Medicare-covered services. All HMOs should report the premium that would be charged for a specified core set of supplemental benefits, as well as premiums charged or credited for benefits other than those in the core set.

The adjusted average per capita cost (AAPCC) payment methodology should be revised so that Medicare payments to health care institutions for direct and indirect medical education costs are not reflected in the AAPCCs. Separate mechanisms for paying Medicare HMOs for medical education expenses they may incur in training residents or using teaching facilities should be explored.

The first three recommendations describe approaches for improving risk program payment methods. These are complementary approaches that would exist in different Medicare HMO markets. The first

two, competitive bidding and modifications to the AAPCC geographic adjustment method, are alternative ways to obtain more predictable HMO capitation payments that better reflect the costs of an efficient HMO. The third approach, partial capitation payment, would adjust for risk selection that occurs because current risk adjustments to payments do not adequately reflect differences in enrollees' expected costs of care.

The Commission is recommending these payment strategies to stimulate greater HMO participation in Medicare and achieve more acceptable per capita program costs. Managed-care options then could be expanded to seek long-term service delivery efficiencies and Medicare cost savings, while ensuring beneficiary choice of plans. Such options might include, for example, Medicare SELECT or other preferred provider plans, open-ended HMOs, or point-of-service plans. More extensive managed-care systems that would change both HMO and fee-for-service benefit and payment structures, such as managed competition, also might be pursued.² Many of the basic principles of competitive bidding methods discussed in this chapter would apply to alternative payment systems based on market competition.

The first two sections provide some background information on the Medicare risk program and discuss issues that have arisen since the program began a decade ago. Then a suggested strategy is presented for improving risk program payment policy consisting of the three payment methods: competitive bidding, refinements to the AAPCC geographic adjustments, and partial capitation. Each is discussed, related issues are identified, and suggestions for developing the method for the risk program are described. This is followed by a section that addresses the role of cost-based contracts for Medicare HMOs in the context of improved risk-contract payment policy. Finally, enrollment policy issues are examined, with an emphasis on their relationships with identified payment policy alternatives.

BACKGROUND

The Medicare risk contracting program was authorized by the Tax Equity and Financial Responsibility Act of 1982. It gives Medicare beneficiaries the option to enroll in HMOs, all of which offer Medicare-covered benefits and most of which also offer coverage of cost sharing and supplemental services that replaces medigap policies.³ Beneficiaries may choose HMO enrollment when they become Medicare-eligible or at other times that Medicare HMOs offer open enrollment. They also are allowed to disenroll from their plans at the end of any given month.

² One managed competition example is the proposed Medicare Choice Act, introduced by Senator Dave Durenberger in the 103rd Congress, which would use a bidding process to establish Medicare payment rates for both HMOs and fee-for-service benefits. Beneficiary premiums would cover the balance of the HMO bids or the fee-for-service costs.

³ Only beneficiaries who are Medicare-eligible due to old age or disability may choose HMO enrollment. End stage renal disease (ESRD) beneficiaries are not eligible unless they already were HMO enrollees at the time they were certified as Medicare-eligible due to ESRD.

HCFA executes annual contracts with HMOs and CMPs to provide all Medicare-covered services for enrolled beneficiaries (both Part A and Part B), for which the plans are paid on a capitated basis. Medicare HMO capitation payments are based on an estimate of local fee-for-service costs, and are established for each county at 95 percent of the AAPCCs for Medicare fee-for-service beneficiaries.⁴ The AAPCCs are calculated annually using the following methodology:

- National average fee-for-service per capita costs (USPCCs) are projected for the coming year by updating historical data on Medicare expenditures and modeling expenditures for new payment policies not reflected in the data.
- County-level AAPCCs are calculated by adjusting the USPCCs by geographic factors, which are the ratios of county to national per capita fee-for-service expenditures (five-year averages).

An HMO's capitation payment rates are risk adjusted for the expected costs of care of the HMO's enrollee mix. For risk classes based on disability, age, sex, welfare status, and institutional status, the risk adjusters are ratios of the national average per capita costs for each risk class to the overall national average.

Although the risk program has been the primary vehicle for HMO participation in Medicare since its inception, Medicare also offers cost-based contracts, under which health plans are paid based on reasonable costs. Cost contracts originated when some health plans contracted with Medicare before the risk program began. Each year, after the AAPCCs for the coming year are announced, Medicare HMOs are given an opportunity to choose whether they will enter into (or continue) a risk contract or cost contract, or discontinue participation.

Enrollment Trends

Only a small percentage of Medicare beneficiaries have enrolled in Medicare HMOs (Table 5-1). As the country's health care system has moved to managed care and integrated delivery systems, both HMO participation in Medicare and enrollment of beneficiaries in those plans have increased. About half of Medicare beneficiaries had access to risk-contracting health plans in 1992, when the number of participating health plans was at an historic low (Brown et al. 1993). The recent growth in the number of Medicare risk contracts has improved access to health plans.

In 1994, almost 7 percent of beneficiaries were enrolled in risk-contracting HMOs and 2 percent were enrolled in cost-contracting HMOs (Table 5-1). Medicare HMO enrollment rates are highly correlated with total HMO market penetration.⁵ Virtually all the beneficiaries enrolled in risk-contracting HMOs

⁴ Medicare establishes one set of Part A and Part B AAPCCs for elderly beneficiaries and a separate set for those who are Medicare-eligible due to disability.

⁵ A correlation coefficient of 0.7 was obtained between state-level enrollment rates for all Medicare HMO enrollment, including both risk-sharing plans and cost-based plans, and HMO penetration rates for states reported by the Group Health Association of America (Bergsten and Palsbo 1993).

reside in urban areas (Table 5-2). States have average HMO enrollment rates ranging from zero to more than 25 percent. The states with the highest enrollment rates in 1994 historically have had relatively high enrollment (Table 5-3).

Table 5-1. Trends in Medicare Health Plan Contracts and Enrollment Rates, 1990-1994

Contract	End of Calendar Year		Percentage Growth 1990-1994
	1990	1994	
Number of HMOs			
Risk contracts	85	154	81.2
Cost contracts	73	85	16.4
Total	158	239	51.3
Enrollment Rates (percentage)			
Risk contracts	3.3	6.6	100.0
Cost contracts	2.1	2.2	4.8
Total	5.4	8.8	63.0

SOURCE: Medicare Managed Care Contract Report, Health Care Financing Administration, Office of Managed Care, 1990 and 1994.

Table 5-2. Geographic Distribution of Health Plan Enrollment for Medicare Risk and Cost Contracts, 1993

Location	Enrollment Rate (percentage)		Percentage of Enrollees	
	Risk	Cost	Risk	Cost
Urban Areas				
Central counties	11.9	2.9	62.4	35.4
Other counties	3.4	2.0	35.6	48.5
Rural Areas	0.4	1.4	2.0	16.1
All Counties	4.8	2.2	100.0	100.0

SOURCE: Physician Payment Review Commission analysis of 1993 Medicare enrollment data, 5 percent beneficiary sample (Denominator file).

Table 5-3. Medicare Health Plan Enrollment Trends for the Ten States with Highest Enrollment Rates, 1990-1994 (percentage of beneficiaries enrolled)

State	1990	1991	1992	1993	1994
Arizona	9	13	19	24	28
California	12	14	17	22	28
Oregon	14	16	18	20	22
Nevada	7	8	11	17	21
Florida	10	12	13	14	15
New Mexico	7	8	9	12	14
Colorado	8	8	9	10	13
Washington	8	8	9	9	11
Hawaii	9	9	9	9	9
Minnesota	9	9	9	9	9

SOURCE: Medicare Managed Care Contract Report, Health Care Financing Administration, Office of Managed Care, 1990-1994.

ISSUES RELATED TO THE MEDICARE RISK PROGRAM

The Medicare risk program has experienced substantial problems with low enrollment and lack of cost savings for Medicare. Inadequacies of the AAPCC payment formula and risk adjustment methods have contributed to these problems. The AAPCC formula also has distorted HMO payments for medical education expenses by the way it treats Medicare payments to fee-for-service providers for these costs. These issues are summarized here.

Effects of Payment Rates on Enrollment

Inadequacies of the AAPCC payment rates appear to have impeded HMO participation in the Medicare risk program. Low AAPCCs, and their volatility over time, were among the reasons for financial losses reported by plans that discontinued risk contracts (Brown et al. 1993).⁶ Where payment problems discourage HMOs from Medicare participation, they contribute to low HMO enrollment rates by limiting beneficiaries' access to these plans.

Geographic variation in AAPCCs reflects local differences in fee-for-service Medicare expenditures due to service use patterns and input price adjustments. Both the levels and volatility of county AAPCCs vary widely across the country (Table 5-4). In 1993, the AAPCCs (the sum of AAPCCs for Part A and Part B) ranged from a low of \$168 to a high of \$599. AAPCCs for urban counties are higher on average, and they vary more than those for rural counties. They also are less volatile over time in more populous areas. When input price adjustments are removed from the AAPCCs, variations in the resulting standardized

⁶ Other reasons identified were adverse selection and difficulties in controlling service costs, often due to inexperience in managing care for elderly enrollees.

AAPCCs represent geographic differences in service use patterns.⁷ The standardized AAPCCs vary only moderately less than the actual AAPCCs, showing that service use variation is the source of much of the variation in the AAPCCs (Table 5-4). It is not known how much of this variation reflects acceptable differences in local service use patterns, and how much may reflect underuse or overuse of services.

Table 5-4. Payment Rate Levels and Volatility for Medicare Beneficiaries, by Urban or Rural Location

Location	Average 1993 AAPCC (\$) (standard deviation)		Average Index Volatility* (standard deviation)
	Actual	Standardized	
All Counties	364 (81)	367 (61)	2.16 (1.2)
County Location			
Central urban	449 (66)	419 (53)	1.66 (0.8)
Other urban	356 (59)	357 (51)	2.08 (1.0)
Rural, urban fringe	298 (47)	336 (51)	2.76 (1.4)
Other rural	288 (45)	328 (50)	2.96 (1.6)

SOURCE: Physician Payment Review Commission analysis Medicare health plan enrollment data and adjusted average per capita costs (AAPCCs).

* Measured as the percentage average annual magnitude of change (higher or lower) in payment index for 1989 through 1993, where the payment index is the ratio of the AAPCC to the national average per capita cost (USPCC).

The influence of AAPCC levels and volatility on Medicare enrollment rates was estimated in relation to overall HMO market penetration.⁸ For urban markets, enrollment rates rose an estimated 3.4 percent for every percentage point increase in AAPCC levels. Enrollment rates were 0.7 percent lower for every percentage point increase in AAPCC volatility, and volatility was more of a deterrent in markets with low overall HMO penetration rates. Thus, if the AAPCCs were changed, HMO participation and enrollment likely would grow in areas where AAPCCs went up and decline where they fell. Policy interventions to reduce payment rate volatility also would help expand Medicare risk program enrollment.

⁷ AAPCCs were standardized for input costs by dividing the Part A and Part B AAPCCs by their respective input price factors, which were developed using the 1996 Medicare Fee Schedule geographic adjustment factors and the 1994 prospective payment system hospital wage indices.

⁸ The analysis estimated a standard linear regression model with the log of risk plan enrollment rates as the dependent variable. Policy variables were AAPCC levels for 1991 and two measures of stability over time: volatility and direction of change. Other variables were overall HMO market penetration and an indicator for central urban counties. Using the ratio of the county AAPCC to the USPCC as a payment index, payment volatility was the annual absolute change in county indexes, averaged over 1987 to 1991, expressed as a percentage of the five-year average payment index. The direction of payment change (or trend) was the difference between a county's payment index in 1991 and its index in 1987, expressed as a percentage of the county's 1987 index. The study sample consisted of 430 counties in Metropolitan Statistical Areas (MSAs) for which the Group Health Association of America developed HMO market penetration data (Bergsten and Palsbo 1993).

Where AAPCCs vary within multicounty markets, HMOs have a financial incentive to enroll selectively Medicare beneficiaries who live in counties with higher payment rates, even though their commercial plan markets also include counties with lower AAPCCs. HMOs are permitted to designate their Medicare service areas by county or subcounty and, within their service areas, they can focus their enrollment marketing in selected counties. Such actions restrict HMO choices and enrollment rates for Medicare beneficiaries living in counties the HMOs avoid. A Commission analysis verified that selective enrollment is occurring, finding that county Medicare HMO enrollment rates within multicounty markets tend to increase with the levels of the AAPCCs.

Cost Savings for Medicare

An evaluation of the risk program found that Medicare HMOs have achieved an estimated 10.5 percent savings through service efficiencies, which do not appear to have lowered quality of care (Brown et al. 1993). For example, health plans reduced hospital inpatient days by 16.7 percent, and they increased the likelihood that patients would receive some outpatient services but decreased their intensity or frequency. HMO patients had outcomes similar to fee-for-service patients for both outpatient and inpatient care. Beneficiaries enrolled in risk-contracting health plans reported somewhat lower satisfaction with the care they received but higher satisfaction with coverage and costs.

Some of the savings from HMO service efficiencies appear to have been shared with beneficiaries enrolled in Medicare HMOs. In many markets, health plans have expanded supplemental benefits or reduced premiums as a way to compete for enrollment. The risk program also has a mechanism called adjusted community rates (ACRs) that is intended to share HMO savings with beneficiaries.⁹ Each year, risk-contracting HMOs are required to return to their enrollees any excess Medicare revenue over their ACRs by reducing premiums or increasing benefits for the subsequent year.

Under current payment policy, the Medicare program does not share in the cost savings achieved by its HMOs. The payment rates remain tied to Medicare fee-for-service expenditures, with no mechanism to quantify HMO savings and revise the payment formula accordingly. Furthermore, risk selection has contributed to HCFA paying an estimated 5.7 percent more, on average, for Medicare HMO enrollees than it would have paid under fee for service (Brown et al. 1993). Some Medicare HMOs have experienced favorable selection in enrollment, while others have had adverse selection. HMOs with adverse selection, which contributed to negative financial results, were more likely to discontinue their risk contracts. The net effect has been selection against Medicare, where enrollees in the remaining Medicare HMOs have incurred lower average health care costs than the expected per capita costs on which the AAPCC payment rates are based.

This risk selection reflects limitations of available risk adjustment methods. The beneficiary characteristics used to adjust Medicare HMO capitation payments have been found to be inadequate risk

⁹ ACRs are estimated payment rates that health plans would have received for their Medicare enrollees if they had been paid at levels of their private market premiums, adjusted for demographic differences. Medicare requires participating health plans to estimate their ACRs annually.

adjusters (Lubitz et al. 1985; Newhouse et al. 1989; Brown et al. 1993). The risk program evaluation found that by including factors for a history of cancer, heart disease, or stroke in AAPCC risk adjustments, overpayment due to favorable selection would have been reduced enough that Medicare would not have paid the extra 5.7 percent to health plans in its risk program (Brown et al. 1993).

Payment for Medical Education

The Medicare USPCC, which is the basis for constructing the county-level AAPCCs, has a flaw that results in overpaying many HMOs for expenses related to medical education. Medicare payments to providers for these expenses are retained in the fee-for-service expenditures used to calculate the USPCCs, and as a result, a national average medical education expense is reflected in all AAPCCs. These payments do not correspond with actual HMO medical education costs because not all HMOs use teaching hospitals or have medical education programs. A better approach would be to remove medical education payments from the USPCC and develop more direct payment methods for HMOs that actually incur these types of expenses.

STRATEGIES FOR IMPROVING PAYMENT POLICY

The Congress is considering a variety of proposals to restructure the Medicare program and beneficiary entitlement, to achieve cost savings through managed care. Examples are a managed competition system specified in the proposed Medicare Choice Act (S. 1996), introduced by Senator Dave Durenberger, and a voucher system specified in the Choice Care proposal by Senator Judd Gregg. Although the proposals vary in design, they all would create a system that offered beneficiaries a variety of managed-care or fee-for-service health plans. They also would limit the per capita amount paid by Medicare, with beneficiaries paying any balance of a health plan's price as premiums. Beneficiaries would choose a plan based on the benefits and premiums offered. Efficiencies would be gained from HMO competition for enrollment that would be recaptured in setting subsequent Medicare payment rates. All of these systems would use either competitive bidding or a formula-based method to establish the Medicare payment rate.

Needed improvements to the current Medicare HMO payment methods should be made before embarking on more comprehensive reform. A strengthened risk program would be the foundation for expanding Medicare managed care, which would involve many of the same payment policy principles and design issues addressed below.

The issues of low enrollment and excess Medicare costs reflect the strong influence that HMO payment policy has on the performance of the Medicare risk program. To help correct these problems, the Commission is recommending a three-pronged strategy to strengthen payment policy for the risk program. Two strategies would improve the capitation payment rates, and the third would mitigate effects of risk selection on HMOs or the Medicare program:

- Use competitive bidding to set Medicare capitation payment rates in HMO markets that have adequate competition to allow this method to be effective.
- For other markets, continue to use the AAPCC-based payment rates with revisions to the geographic adjustments to improve the geographic consistency of the AAPCCs and their predictability over time.
- Test various partial capitation payment methods that would mitigate risk selection by basing HMO payments partly on a capitation rate and partly on an HMO's actual utilization experience.

An effective payment method should have several desired attributes, which the Commission considered as it assessed alternative payment approaches. First, it should be capable of establishing payment rates that reflect the economic costs of an efficient HMO. Payment rates also should be predictable from year to year, to avoid undue HMO financial uncertainty caused by payment fluctuations, and they should be adjusted fairly for variations in expected health care costs for HMOs' enrollees. Additionally, payments should be structured to create incentives for HMOs that are consistent with providing quality care. Finally, administrative demands of a payment method should be reasonable for HCFA and participating health plans.

Competitive Bidding

Competitive bidding methods would use information from HMO price competition to establish Medicare payment rates that reflect the costs of an efficient HMO, and thus would uncouple payment rates from Medicare fee-for-service expenditures. In competitive bidding, health plans in a market submit price bids, which are used to establish the market's Medicare payment rate. The Commission evaluated several competitive bidding options for setting Medicare HMO capitation payments. It also considered other market-based pricing methods that would set payment rates based on already existing market information about HMO costs.¹⁰ These options were not pursued, however, because the Commission concluded that competitive bidding offered the strongest potential to obtain consistent and predictable HMO payment rates.

Competitive bidding is used extensively in private managed-care markets, and its use has been growing in the public sector. Two well-known examples are the Arizona Health Care Cost Containment System (AHCCCS) and the Health Insurance Plan of California (HIPC). For the past decade, AHCCCS has been contracting with HMOs to provide services for Arizona's indigent poor. A formal bidding process is conducted every three years, and prices are adjusted for inflation in the intervening years. In rural markets, contracts are awarded to only a few HMOs; in other markets, reductions in high bids may be negotiated (Rothstein 1994). The California HIPC was started in 1993

¹⁰ One method was to use actuarial methods to adjust commercial market premiums to obtain Medicare payment rates. Another was to use premiums charged by HMOs for supplemental Medicare benefits to adjust payment rates, where payments would be adjusted downward for HMOs with low premiums and upward for those with high premiums. Limitations of these methods included measurement uncertainties and vulnerability to gaming.

to assist small employers in obtaining group health insurance. Each year, health plans submit payment rate bids for a set of risk groups in a geographic area designated by the state. Plans with bids that are higher or lower than a defined range are not given contracts (Ramey 1994).

A competitive bidding process must have two essential elements to create incentives for HMOs to submit bids that are close to or at their economic costs (Christianson and Smith 1984; McCombs and Christianson 1987):

- active price competition in bidding among multiple bidders, and
- a financial penalty for bidders that bid higher than the price that ultimately is established.

The rest of this section describes how such a system might be designed and implemented for Medicare.

The Bidding Process. A competitive bidding process for the Medicare risk program would consist of four basic steps. First, HMOs interested in bidding would have to qualify based on requirements for Medicare risk contracts that are specified in federal regulations. Second, qualified HMOs would submit their bids indicating the minimum payment rate they would accept for Medicare-covered services. Third, the Medicare payment rate would be established for a market based on the HMO bids submitted. Finally, a penalty for HMOs bidding higher than the established payment rate would be determined.

Setting the Payment Rate. One Medicare payment rate should be established for a market where competitive bidding is used. This rate would be set at a predetermined percentile of the range of HMO bids so that the bids of multiple HMOs would be at or below the established rate, and all of those HMOs would be paid the established rate. This approach would strengthen the incentive for low-cost HMOs to compete on price because they could bid low without hurting their profits. Desired enrollment capacity also might be considered in establishing the payment rate, for example, where the bid percentile might be increased if HMOs with low bids lacked capacity to serve the anticipated enrollment. Price negotiation should not be a feature of this process, because it would increase administrative burdens for HCFA and HMOs without improving payment rates.

Penalty for High Bidders. All HMOs that submit bids should be allowed to serve the Medicare market, but those that bid higher than the established payment rate should face some form of financial penalty. Although eliminating the high bidders would create a stronger penalty, retaining HMOs in the Medicare market would provide for the fullest choice of HMOs for beneficiaries. It also would create two phases of HMO competition: price competition in the bidding process, followed by competition for enrollment after payment rates were established. Competition for enrollment would be on quality, supplemental benefits, and premiums where, for example, low-cost HMOs could offer more benefits or lower premiums than other HMOs.

One way to structure the penalty would be to require HMOs with high bids to charge some or all of the balance of their bid to beneficiaries in the form of premiums. This approach would create price competition among HMOs for enrollment, in addition to competition on quality and benefits. HMOs with better quality but higher-cost services would be able to compete for enrollment at higher prices, while lower-cost HMOs would be discouraged from bidding higher than their costs. These premiums for Medicare-covered services would be disclosed to Medicare beneficiaries separately from premiums for cost sharing or supplemental benefits.

Limits on Payment Rates. Because it is not clear how implementing competitive bidding might affect Medicare costs, some have proposed using payment rate limits to reduce the program's financial risk. Such limits, however, would counteract the potential benefit of using competitive bidding in two ways. First, they would distort competition in the bidding process, especially if risk selection has biased fee-for-service payments. Second, if the current AAPCCs were used as limits, they would reintroduce some of the same problems to the HMO payment rates that competitive bidding was intended to correct. An alternative measure of fee-for-service per capita costs would be the USPCC, adjusted for local input prices (and possibly for some service use variation).

Given these problems, the Commission advises against establishing a maximum limit for competitively bid payment rates unless absolutely necessary to protect the Medicare budget. One alternative way to control Medicare costs would be to implement competitive bidding only in markets with high AAPCCs. Another would be to set the final payment rate close to the lowest HMO bid. This approach would create a stronger financial barrier to choice of HMOs, however, by increasing the number of high bidding HMOs that would charge beneficiaries premiums for Medicare-covered services.

Comparison with the Medicare Choice Act Model. A competitive bidding model that contains elements similar to those described above has been proposed in the Medicare Choice Act. This proposal would create a Medicare managed competition system based on a model developed by Dowd and his colleagues (1993). Unlike the bidding process suggested here, however, it would set the Medicare payment rate based on the lowest bid, which would be capped by a fee-for-service per capita cost payment limit. All HMOs except the lowest bidder would charge beneficiaries the balance of their bids as premiums. This approach could weaken incentives for low-cost HMOs to bid low, because doing so would reduce their profit margins while offering limited competitive advantage. Additionally, beneficiaries who were able or willing to pay only the standard Part B Medicare premium would have a choice between the lowest bidding HMO (or HMOs) or obtaining care in the fee-for-service sector; beneficiaries would have to pay higher premiums to have access to other HMOs.

Introducing Competitive Bidding. Successful implementation of competitive bidding for the risk program would be a challenging task. Competitive bidding would not be feasible in some small markets (such as rural areas), where few HMOs would be willing to bid for Medicare contracts, although it may be difficult to predict which markets these might be.¹¹ To help ensure success, HCFA

¹¹ HMOs might bid in some rural markets, as shown by the experience of the Arizona AHCCCS program where five or more HMOs bid for contracts for some of the state's rural counties.

should be given sufficient authority and discretion to test a variety of approaches. Competitive bidding should be introduced first in a few competitive markets with high AAPCCs, where savings might be achieved. Then HCFA could expand into other markets as experience was gained and conditions changed in managed-care markets. Among the issues to be resolved are risk adjustment of payment rates, effects of competitive bidding on beneficiary choice of health plans and premiums, and implications of changing Medicare payment rates for supplemental benefits and premiums.

Risk Adjustment. Like any capitated payment, competitively bid Medicare HMO payment rates should be risk adjusted to reflect differential expected costs of beneficiaries who enroll in HMOs. Possible approaches would be to have HMOs bid separate prices for risk groups or to risk adjust a competitively bid price for a standard enrollee. Current limitations of risk-adjustment methods will pose the same problems for competitively bid payment rates as they do for the AAPCCs. Work continues on developing improved risk-adjustment methods, including recent research sponsored by the Commission (see Appendix B). Competitive bidding also could be combined with partial capitation to adjust for risk selection that occurs because of limitations in risk-adjustment methods.

Beneficiary Choice of Health Plans. A competitive bidding process would affect both the number of health plans available to beneficiaries and the premiums they would have to pay for those choices, depending on the payment rates established and how the high bidding HMOs were penalized. The approach suggested here would allow all bidding HMOs to be available to beneficiaries. Its financial penalties for high-bidding plans, however, would reduce the number of plans available to beneficiaries at no extra premium. This may discourage beneficiaries from choosing HMOs over the fee-for-service sector.

Impacts on Supplemental Benefits. Changing to a competitive bidding method would stimulate changes in the supplemental benefits offered by Medicare HMOs. Where competitive bidding lowered payment rates, HMOs probably would offer less generous supplemental coverage. This change would be most detrimental for low-income beneficiaries, who are more likely to be enrolled in HMOs than other beneficiaries.¹² Conversely, enrollees in markets where HMOs obtained higher payment rates might gain from richer supplemental benefits. Also, low-cost HMOs might want to offer premium rebates to enrollees, which currently are not allowed by Medicare. Rebates would give beneficiaries an additional option to choose between cash savings and purchase of additional benefits, but they would not allow Medicare to share in cost savings.

Refining the AAPCC Geographic Adjustments

Even if new payment methods are introduced for paying Medicare risk contractors, the AAPCCs will continue to have a role for the foreseeable future. Competitive bidding would be limited to certain Medicare HMO markets. If contrary to the Commission's recommendation, a decision was made to

¹² The risk program evaluation found that health plan enrollees had lower income on average, compared with nonenrollees, and before enrolling in an HMO they were less likely to have Medicaid coverage or other supplemental insurance (medigap) coverage and were less likely to have a usual place for health care (Brown et al. 1993).

set maximum limits for competitively bid payment rates based on Medicare fee-for-service per capita expenditures, AAPCCs also might serve as that measure. Therefore, the flaws in the current AAPCCs need to be corrected.

In the AAPCC methodology, the geographic adjustment that converts national USPCCs to county-level AAPCCs is the source of the wide geographic variation in the AAPCCs and their volatility over time. This method consists of two components: the type of adjustment made to the USPCC to obtain the AAPCCs and the geographic areas for which AAPCCs are established. The method could be improved by changing either of these components.

This section evaluates options for improving the geographic adjustment methods, looking first at ways to reduce geographic variation in the AAPCCs and then at ways to reduce their volatility. The theory that guides the design of each approach is discussed. Then, using simulations of Medicare HMO payments, the effects of various methods on the geographic variation and volatility of payment rates are evaluated.

Reducing Geographic Variation in Payments. Geographic variations in the AAPCCs currently reflect local variations in both service use patterns and provider input prices. A decision is required as to how much of the total variation in these two components should be recognized in the geographic adjustments. HMO input prices include the prices HMOs pay health care providers for enrollees' health services and what they pay for other personnel and supplies. It is generally accepted that geographic adjustments should recognize input price factors that HMOs cannot control, such as local wage rates or supply costs.

A major portion of the geographic variation in AAPCCs is due to service use patterns, as discussed above. Service use variation is attributed to local differences in patient health status and service use preferences, provider practice patterns, and financial and geographic access to providers. To determine how much variation to allow, it must be possible to identify and measure the acceptable components of service use variation. For example, it would be desirable to adjust AAPCCs for geographic differences in health status or medical needs. Additionally, the AAPCCs should not reflect overuse of services or inadequate access to care. These components are not measurable with any degree of confidence, however, and their effects cannot be separated easily from other factors, such as different beneficiary preferences for health care that may be constrained to varying degrees by personal income. There also is little agreement regarding acceptable variations in provider practice patterns.

In the Commission's view, some portion of the geographic variation in service use patterns due to differences in health status and service needs is acceptable. A goal would be to develop better geographic adjustment methods that reflect only acceptable sources of service use variation. Until then, adjustments for some portion of this variation can be operationalized using statistical methods.

The Commission evaluated two such approaches, comparing them with the current AAPCCs. The first is to establish county-level per capita payment rates by adjusting the national USPCCs only for

geographic variations in provider input prices.¹³ This method represents one extreme of the range of possible service use adjustments because it would eliminate all adjustment for service use variation. It would create the greatest change in payments from the current AAPCCs that, at the opposite extreme, allow the full range of service use variation.

The other method evaluated is trimming of high or low AAPCCs, which is a relatively conservative approach that accepts all service use patterns except those that are extremely high or low. In this method, AAPCCs that exceed an upper threshold or are less than a lower threshold would be trimmed to the relevant threshold. Two alternative ranges were tested. One alternative trimmed actual AAPCCs at thresholds of 150 percent or 80 percent of the USPCC. The other one trimmed the standardized AAPCCs at 135 percent and 75 percent of the USPCC.¹⁴ Trimming the standardized AAPCCs is theoretically preferable to trimming actual payments because it would not penalize health plans in areas with high input prices or overpay those in areas with low input prices.

County-level AAPCCs were simulated under these two methods to test how effective each method would be in obtaining payment rates that vary less across geographic areas, compared with the current geographic adjustments. Effects on AAPCC volatility also were examined, with volatility measured as the percentage average annual magnitude of change in AAPCC over a five-year period. The financial impacts that implementing each method might have on existing Medicare HMOs also were simulated. Potential impact was measured as the percentage difference between the new and actual AAPCC for each county, weighted by the number of beneficiaries currently enrolled in HMOs.¹⁵

The input-price-adjusted USPCCs would move payments from urban areas to rural areas, compared with the actual AAPCCs. They also would reduce payment volatility because input price indices change less from year to year than service use patterns (Table 5-5). Implementing this method would cause substantial changes in payment rates for existing HMOs, however, decreasing payments in counties with 37 percent of HMO enrollment and increasing them for the rest (Table 5-6).¹⁶

By contrast, the trimming methods would change geographic variation in payment rates very little, compared with the actual AAPCCs, because they would affect only a small number of counties (Table 5-5). As a result, implementing one of these methods would have little impact on existing HMOs

¹³ The input price factors used to adjust the USPCCs were the same as those used to standardize AAPCCs, as described above.

¹⁴ The 150/80 percent thresholds for actual AAPCCs have been used in several legislative proposals. The 135/75 percent thresholds were established at high and low points on the distribution of beneficiaries by standardized AAPCCs where discontinuities indicated that the more extreme AAPCCs did not fit the overall payment pattern.

¹⁵ Data used for the simulations were enrollment and expenditures data for 1991, which was the base year of the 1994 Medicare AAPCC master file, and the published AAPCCs for 1987 through 1993. Simulated expenditures under each alternative were adjusted to be budget neutral to expenditures under the actual AAPCCs.

¹⁶ The input-price-adjusted USPCCs created lower average per capita expenditures than the actual AAPCCs, and they were adjusted upward for all counties to maintain budget neutrality with the actual AAPCCs for current HMO enrollees. Without a budget neutrality adjustment, 78 percent of HMO enrollees would be in counties where the input-price-adjusted USPCCs were lower than the AAPCCs.

(Table 5-6). They would have a bigger effect by using trimming thresholds that were closer to the USPCC. Trimming would not reduce AAPCC volatility, regardless of the thresholds chosen, because it would not have consistent effects on any given county from year to year.

Because neither the input-price-adjusted USPCCs nor trimming appears to be a satisfactory method for improving AAPCC consistency across geographic areas, the Commission recommends that a different approach be used: a blended AAPCC that is a weighted average of the AAPCC and input-price-adjusted USPCC. This method would allow some adjustment for service use and, when implemented, it would cause less dislocation for current HMOs than the input-price-adjusted USPCC. The blended AAPCCs should be weighted toward the AAPCC to avoid disallowing payment that reflects acceptable variation in service use. Although this method offers a reasonable solution for an interim period, methods to adjust more directly for acceptable service use variations should be developed.

Reducing AAPCC Volatility. The volatility of county-level AAPCCs over time is related to the size of a county's Medicare population whose health care expenditures are used to calculate the AAPCCs. Per capita costs estimated for small Medicare populations have larger statistical error than those for larger populations, causing them to fluctuate more over time. Two approaches to reduce AAPCC volatility are discussed below: defining geographic areas that have larger populations or using a statistical technique to obtain less volatile estimates of county-level per capita costs.

Redefining Geographic Areas. Several criteria should be considered when defining geographic areas, which involves making trade-offs among them. Areas are defined by imposing boundaries upon a spatial continuum of population characteristics and service use patterns. Ideally, these boundaries will define areas with homogeneous populations, so that a capitation payment rate accurately represents the expected cost of health care for individuals residing in an area. The areas also should have large enough populations to obtain predictable AAPCCs, they should conform reasonably well to HMO market areas, and they should be administratively feasible (Porell et al. 1990). A key trade-off is between homogeneity and AAPCC predictability, where defining geographic areas with small Medicare populations obtains the greatest homogeneity but also creates unpredictable AAPCCs.

Using counties as the geographic units for the AAPCCs offers the advantages of boundaries that do not change over time and the availability of county-level data required for calculating payment rates (e.g., institutionalized populations). A disadvantage is that counties vary widely in the sizes of their geographic areas and populations, and many counties have heterogeneous populations.¹⁷

One way to reduce AAPCC volatility would be to define multicounty areas by aggregating adjacent counties. This approach would sacrifice some homogeneity but would retain areawide practice patterns. Defining the multicounty areas to reflect HMO market areas also would create one payment

¹⁷ Another alternative is ZIP codes, many of which would have more homogenous populations than counties because of their smaller size. Disadvantages of ZIP codes are that their populations are small, and data are less readily available at the ZIP code level than for counties. Also, ZIP code boundaries are redefined from time to time as local populations change. Although this helps retain population homogeneity, it complicates year-to-year comparisons of local area demographics and health care expenditures.

rate for a market, which would reduce the incentive for HMOs to select enrollees within their markets based on county differences in payment rates. Previous research has shown that county groupings based on urban cores, urban rings, and rural areas reduce AAPCC volatility. Existing county classifications within and adjacent to metropolitan statistical areas (MSAs) were used to define the multicounty areas (Welch 1989; Rossiter and Adamache 1990; Porell et al. 1990; Welch 1991).

Table 5-5. Estimated Effects of Alternative Geographic Adjustment Methods on Payment Rate Levels and Volatility, 1991

Payment Measure	Actual AAPCCs	Input Price Adjusted USPCC	Trim High and Low AAPCCs	
			Actual AAPCCs (150/80%)	Standardized AAPCCs (135/75%) ^a
Average AAPCC				
All beneficiaries	\$302	\$302	\$302	\$302
(Standard deviation)	(68)	(31)	(63)	(66)
Central urban	376	328	371	374
Other urban	295	304	295	295
Rural - urban fringe	245	272	250	247
Other rural	239	269	245	240
Average Index Volatility ^b				
All beneficiaries	2.16%	0.03%	1.87%	2.05%
(Standard deviation)	(1.2)	(0.02)	(1.4)	(1.2)
Central urban	1.66	0.02	1.59	1.53
Other urban	2.08	0.02	2.01	2.05
Rural - urban fringe	2.76	0.04	1.96	2.52
Other rural	2.96	0.04	1.82	2.65

SOURCE: Physician Payment Review Commission analysis of Medicare health plan enrollment data and adjusted average per capita costs (AAPCCs).

^a Trimmed at 135 percent and 75 percent of the national average per capita cost (USPCC), which is where breaks were observed in the distribution of beneficiaries by total standardized payment rate (Part A plus Part B) and extreme (outlier) cases began.

^b Measured as the percentage average annual magnitude of change (higher or lower) in payment index for 1989 through 1993, where the payment index is the ratio of the AAPCC to the USPCC.

NOTE: Payments are estimated for a standard beneficiary, obtained by applying Medicare risk adjustment factors to the counts of individuals.

The Commission has evaluated two ways of defining multicounty areas that use these classifications. One option would define each MSA as an area and, for each state, it would define one rural area that included all non-MSA counties in the state. Another option would define two types of urban county areas within each MSA (central and other counties) and two types of rural areas for each state (urban fringe and other), which would recognize variations in service use and costs within both urban and rural areas. These configurations were chosen because they employ commonly used geographic

boundaries and the urban boundaries are reasonably consistent with HMO markets (Bergsten and Palsbo 1993).

Table 5-6. Changes in County Payment Rates Under Alternative Geographic Adjustment Methods, 1991 (percentage)

Change in Payment Rate	Input Price Adjusted USPC	Trim High and Low AAPCCs	
		Actual AAPCCs (150/80%)	Standardized AAPCCs (135/75%)*
Percentage Distribution of HMO enrollment			
>15% decrease	7.8	0.0	0.0
11-15% decrease	14.9	0.0	0.0
6-10% decrease	7.9	0.0	0.0
1-5% decrease	14.6	3.7	3.7
No change	0.0	93.3	91.8
1-5% increase	16.4	1.6	4.0
6-10% increase	16.2	0.4	0.1
11-15% increase	6.2	0.6	0.2
>15% increase	15.9	0.4	0.2
Average Percentage Change			
All HMO enrollment	2.3	0.1	0.1
Central urban	-3.9	-0.2	-0.0
Other urban	10.1	0.2	0.1
Rural - urban fringe	22.4	5.3	0.4
Other rural	32.0	5.5	3.3

SOURCE: Physician Payment Review Commission analysis of Medicare health plan enrollment data and adjusted average per capita costs (AAPCCs).

* Trimmed at 135 percent and 75 percent of the national average per capita costs (USPCC), which is where breaks were observed in the distribution of beneficiaries by total standardized payment rate (Part A plus Part B) and extreme (outlier) cases began.

NOTE: Payment changes are estimated by weighting the county percentage changes by the number of standard health plan enrollees, obtained by applying Medicare risk adjustment factors to the counts of health plan enrollees.

Payment simulations verified that establishing payment rates for multicounty areas would reduce payment rate volatility, particularly in rural areas, and it would eliminate much of the payment variation across counties within HMO markets (Table 5-7). Because use of multicounty areas would redistribute payments within each county group, rather than across urban and rural counties, the net financial impacts on health plans serving regional markets should be small (Table 5-8).

Table 5-7. Estimated Effects of Alternative Definitions of Geographic Areas on Payment Rate Levels and Volatility, 1991

Payment Measure	Actual AAPCCs	Urban/Rural	Central and Other Urban/ Urban Fringe and Other Rural
Average AAPCC			
All beneficiaries	\$302	\$302	\$302
(Standard deviation)	(68)	(62)	(64)
Central urban	376	361	376
Other urban	295	302	294
Rural - urban fringe	245	243	245
Other rural	239	240	238
Average Index Volatility*			
All beneficiaries	2.16%	1.67%	1.70%
(Standard deviation)	(1.2)	(0.9)	(0.9)
Central urban	1.66	1.48	1.52
Other urban	2.08	1.80	1.82
Rural - urban fringe	2.76	1.57	1.70
Other rural	2.96	1.62	1.62

SOURCE: Physician Payment Review Commission analysis of Medicare health plan enrollment data and adjusted average per capita costs (AAPCCs).

* Measured as the percentage average annual magnitude of change (higher or lower) in payment index for 1989 through 1993, where the payment index is the ratio of the AAPCC to the national average per capita cost.

NOTE: Payments are estimated for a standard beneficiary, obtained by applying Medicare risk adjustment factors to the counts of individuals.

Shrinkage Estimators. A shrinkage estimator is a statistical method that would reduce the volatility of county-level AAPCCs while retaining some of the local population homogeneity that would be lost by using larger, multicounty areas. This measure is a weighted average of a county's AAPCC and the AAPCC for a larger geographic area that contains the county. The weight applied to a county AAPCC would be selected based on the magnitude of the AAPCC's volatility, where the weight would be smaller for an AAPCC with high variance and larger for one with low variance. A shrinkage estimator is a statistically more precise measure of a county's true per capita expense than its observed average expense (Newhouse 1986; Porell et al. 1990).

In choosing between multicounty areas or shrinkage estimators, trade-offs must be made between either protecting population homogeneity or reducing AAPCC volatility and selective enrollment by HMOs. An AAPCC for a multicounty area would be less volatile than a shrinkage estimator for one of the area's counties. By definition, the shrinkage estimator would have a volatility that falls between that of the original county AAPCC and the multicounty AAPCC. The incentive of HMOs to select enrollment within their market areas based on payment rate also would be reduced more by multicounty areas than by shrinkage estimators. The population of a multicounty area would be less

homogeneous than that of an individual county, however, which would reduce the accuracy of the multicounty AAPCC in estimating expected per capita costs. Judgement regarding the relative importance of each of these factors should guide the choice of method.

Table 5-8. Changes in County Payment Rates Under Alternative Definitions of Geographic Areas, 1991 (percentage)

Change in Payment Rate	Urban/Rural	Central and Other Urban/ Urban Fringe and Other Rural
Percentage Distribution of HMO enrollment		
>15% decrease	1.3	0.5
11-15% decrease	2.5	0.7
6-10% decrease	3.2	5.9
1-5% decrease	28.6	18.6
No change	0.0	0.0
1-5% increase	57.4	70.9
6-10% increase	2.3	1.7
11-15% increase	2.9	0.7
>15% increase	1.8	0.9
Average Percentage Change		
All HMO enrollment	0.4	0.1
Central urban	-1.2	0.5
Other urban	3.0	-0.5
Rural - urban fringe	-0.8	-0.8
Other rural	-0.6	-1.2

SOURCE: Physician Payment Review Commission analysis of 1991 Medicare health plan enrollment data and adjusted average per capita costs (AAPCCs).

NOTE: Payment changes are estimated by weighting the county percentage changes by the number of standard health plan enrollees, obtained by applying Medicare risk adjustment factors to the counts of health plan enrollees.

Partial Capitation

Although competitive bidding or improved AAPCCs would strengthen Medicare HMO capitation payments, some inherent limitations of capitation still would contribute to problems in the risk program. One of these is risk selection, which remains an issue because of the inadequacies of risk-adjustment methods. Risk selection not only has discouraged HMOs from participating in the risk program, but also has increased Medicare per capita costs. Another limitation is financial risk for HMOs from large, unpredictable health care costs incurred by a small fraction of HMO enrollees, for example, for treatment of major trauma. This risk is a problem primarily for HMOs with small enrollments that have limited capacity to absorb the financial impact of a few expensive cases.

Partial capitation is an alternative approach for paying HMOs that could address these limitations by basing part of their payment on actual service experience. Whereas HMOs assume full risk for their enrollees' health care costs under full capitation, they would have a more narrow risk corridor under partial capitation that would be defined by establishing cutoffs, or thresholds, at specified levels of gain or loss. Gains or losses outside those thresholds would be shared by the HMO and Medicare by basing a percentage of the payment on the capitation payment, say 60 percent, and the remaining percentage, or 40 percent in this example, on actual service use experience. Partial capitation methods differ in where they set the thresholds, what percentage they use for each payment component, and whether risk is shared for both high and low service expenses or just high expenses.

Changing to partial capitation would redistribute payments by moving payments from HMOs with enrollees that had lower-than-expected health service costs to those with more costly enrollees, as well as from efficient to inefficient HMOs. More payments would be redistributed by using smaller percentages for the capitation portion of the payment and by setting lower risk corridor thresholds. Partial capitation might achieve early savings for Medicare because HMOs currently have favorable selection that would result in lower partial capitation payments. This effect should be temporary, however, because partial capitation creates incentives that ultimately should yield more neutral selection patterns.

Because of anticipated difficulties in implementing partial capitation, the Commission recommends testing partial capitation options in demonstration projects before making decisions regarding their broader use in the Medicare risk program. These difficulties relate to administrative and data requirements. In addition, demonstrations could be used to develop empirical information for setting thresholds and weights for risk sharing by HMOs and Medicare.

Partial Capitation Models. Three partial capitation models might be tested for the Medicare risk program: blended rates, risk corridor payments, or outlier payments (Newhouse 1986; Wallack et al. 1988; Newhouse 1994). To varying degrees, all these methods would mitigate risk selection at the expense of capitation's efficiency incentives. Capitation reduces costs by creating incentives for HMOs to control the prices they pay providers and to achieve a less costly service mix (volume and intensity). Some partial capitation models would weaken only the incentive to achieve service mix efficiencies. Others would weaken incentives associated with both the price and service mix components.

Blended Rate Payments. This method would make all payments based on a percentage of the capitation payment and a percentage of payment for an HMO enrollees' actual utilization; that is, it would set thresholds at zero so there is no risk corridor. Blended rates thus could reduce risk selection substantially because Medicare and HMOs would share all utilization expenses. The amount of reduction would depend on what percentages were used. Placing a smaller weight on the capitation component would achieve greater risk selection mitigation, accompanied by weaker efficiency incentives.

The service use component of a blended rate could use fee-for-service payments for Medicare-covered services based on current Medicare payment policies. Using this approach for all services could be complex to administer, however, because Medicare uses a variety of payment methods for different types of settings and providers (e.g., physicians, outpatient centers, home care). Alternatively, partial capitation might be applied only for physician and hospital inpatient services, which together represent three-quarters of total Medicare per capita costs (HCFA 1994). This approach could achieve much of the risk selection mitigation with less administrative complexity.¹⁸

Another approach would be to base the service use component on payment of HMOs' actual costs, similar to the current HMO cost contracts. This is a less desirable option because cost payments would weaken incentives for HMOs to control both price and service mix, whereas fee-for-service payment methods would control price.

Risk Corridor Payments. Under a risk corridor method, an HMO would be paid its capitation rate unless its net aggregate financial gains or losses exceeded established thresholds. When an HMO exceeded a threshold, the capitation rate would be adjusted downward by a percentage of its net gain or upward by a percentage of its net loss. Because this method would share risk only for extreme cases, it would be less effective than blended rates in mitigating risk selection and would be less harmful to efficiency incentives.

Outlier Payments. Outlier payment is a form of reinsurance that reduces HMO financial risk from unpredictably expensive enrollees, rather than mitigating risk selection. One payment threshold would be established at a specified level of high loss. For each high-cost enrollee, Medicare would pay a share of the HMO's net loss in excess of the threshold. The threshold and the Medicare risk share would be determined administratively in designing an outlier policy. HCFA is testing this model in mature HMO markets in a three-year demonstration project. It has had difficulty finding and retaining HMOs for the demonstration, however, apparently because of data requirements or lack of interest in the payment method.¹⁹

Issues Regarding Partial Capitation. Before partial capitation would be ready for full implementation, uncertainties must be resolved regarding the feasibility of its data requirements for HMOs and how those requirements might affect HMO participation in the risk program. Depending on the partial capitation method used, HMOs would be required to report either detailed encounter data for their Medicare enrollees or summary data on their Medicare per capita operating costs. This

¹⁸ In markets where competitive bidding is used, a payment system could combine competitive bidding with partial capitation. Such a system would pay HMOs blended rates as the partial capitation method. In a competitive bidding process, HMOs would submit bids for the capitation payment component and for the basic payment rates for the fee-for-service payment component of the blended rates. For physician and hospital inpatient services, for example, they would submit bids for the conversion factor in the Medicare Fee Schedule and the standardized rate in the prospective payment system.

¹⁹ The outlier project is being conducted in Seattle, with all four Medicare HMOs in the market, and in Portland, where three out of five HMOs in the market are participating. An outlier risk pool is being established for each market, funded at a level of 2 percent of the AAPCC. HMOs in the market will draw outlier payments from the pool. HMOs in Minneapolis had agreed to participate but subsequently dropped out.

could be a burdensome requirement for many HMOs because HMOs vary in the data they routinely collect and the capability of their information systems (Gabel et al. 1994). Among other factors, the ability of an HMO to provide patient-level data could depend on the structure of the HMO's service delivery network. HMOs that capitate physician groups may collect less of the required data than other plans. As payers increasingly require HMOs to develop data systems for monitoring quality of care, this issue likely will become less important.

Faced with trade-offs between protection from risk selection and greater administrative burden, some HMOs might decide to discontinue participation in the risk program rather than accept partial capitation. One factor that could influence HMOs' decisions is the preference for capitation that HMOs express because they are organized to manage care under a capitated payment and incentive structure. If an HMO's capability to handle the data requirements of partial capitation is an indicator of its overall quality of care and other services, then lower quality HMOs would be the ones most likely to leave the risk program.

It is possible, however, that data requirements also would drive away some high-quality plans. HMOs providing high-quality services may monitor their clinical and administrative processes using sample or summary data. Requiring these plans to report complete encounter data that they do not collect routinely could discourage their participation in Medicare. Partial capitation might be more feasible if sample data could be used to determine the partial capitation payment. This approach also could be tested in demonstrations.

CONTINUED ROLE FOR COST CONTRACTS

The availability of cost contracts has provided an alternative for HMOs that otherwise might not participate in Medicare because of the problems with the AAPCCs, thus maintaining HMO options for Medicare beneficiaries. This contracting flexibility, however, has increased Medicare costs by allowing HMOs with higher costs to retain Medicare contracts and receive higher payments than the capitation rates. Where these higher costs are due to adverse selection, availability of cost contracts also contributes to the favorable selection found for risk-contracting HMOs.

Where payment methods are improved through use of competitive bidding, cost contracts should be discontinued. Cost contracts could continue to serve a safety net role in other markets, many of which would be rural areas. Where cost contracts are offered, risk selection might be mitigated by limiting the frequency with which HMOs can change between risk and cost contracts.

If partial capitation is used, neither cost-based payments nor full capitation should be allowed as contract options because their availability would prevent effective use of partial capitation. Because HMOs and Medicare would share financial risk under partial capitation, HMOs would not choose this option if they had free choice of capitation or cost contracts. HMOs with favorable selection would prefer full capitation, while HMOs with adverse selection would prefer cost contracts.

ENROLLMENT POLICY ISSUES

The current Medicare policy for HMO enrollment is another factor that may be contributing to low enrollment and risk selection problems in the Medicare risk program. In a relatively unstructured process, beneficiaries may enroll in an HMO when they become Medicare-eligible or at such times that HMOs in their areas offer open enrollment periods. Beneficiaries' ability to make informed decisions about their HMO options is hampered by lack of coordination of the open enrollment periods and by the limited availability of reliable comparative information on HMO performance and the various supplemental benefits and premiums they offer. Currently, information is provided in marketing materials developed by the HMOs, which have been approved by HCFA before they are used.

New methods need to be developed to enable beneficiaries to make well-informed choices for HMO enrollment. This is particularly true where competitive bidding is used to set Medicare payment rates, to stimulate HMO competition for enrollment. Annual coordinated open enrollment should be established, which could be scheduled either once annually or by the month of beneficiaries' birthdates. During an open enrollment period, beneficiaries should be given objective comparative information on HMO performance and on supplemental benefits and premiums. The benefits information should be standardized so that beneficiaries can understand clearly what their financial liability would be under each HMO option.

The policy that permits beneficiaries to disenroll from HMOs at the end of any month also should be reevaluated. By allowing beneficiaries to leave HMOs freely when they require more health care services, this policy has contributed to risk selection behavior by beneficiaries and HMOs (Porell et al. 1992). Risk selection could be mitigated by establishing a fixed enrollment period, such as annual enrollment, which is a common practice for health plan enrollment in the private sector. This policy might include an introductory enrollment period, say two or three months, to allow beneficiaries to gain experience with HMOs.

Changing to a fixed enrollment policy, however, would restrict the freedom that beneficiaries currently have to change plans if they are not satisfied with their care. Thus, although this is an important issue, the Commission is not yet making a recommendation on enrollment periods. It will do so after it has examined further the frequency of HMO enrollment changes by beneficiaries and has evaluated options for introducing fixed enrollment and their potential consequences for beneficiary satisfaction and HMO enrollment.

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IMPROVING MEDICARE COVERAGE DECISIONS

The United States is justifiably proud of its reputation as the world leader in the development and use of new medical technologies and treatments. New services can provide substantial health benefits for patients. Not all innovations are beneficial, though, and many are adopted widely without sufficient knowledge of their outcomes and risks for specific clinical indications. New services can also contribute substantially to rising health care costs (Newhouse 1993). The challenge is to identify worthwhile new services in a timely fashion and in a way that does not inhibit innovation (Rettig 1994). Coverage decisions by health plans to pay for or provide a service for particular clinical indications are an important mechanism by which such determinations are made.

There are several problems with how coverage decisions are made within the Medicare program. First, because most of these decisions are made by individual Medicare carriers in a decentralized fashion, coverage policies can vary in different sections of the country. Too few high-quality technology assessments are performed, and the coverage decisions are often delayed. Further, Medicare, like all health plans, has been struggling with difficult coverage issues, such as what constitutes experimental treatment and when to pay for it, and whether and how to consider the comparative cost and benefits of alternative treatments. Finally, the relationship between coverage policies of fee-for-service Medicare and those of managed-care plans that enroll Medicare beneficiaries pose special issues.

The Commission's recommendations would improve Medicare's coverage decisions in three ways: by making these decisions more consistent nationwide and based on rigorous analyses of the best data available; by developing processes for provisional coverage of new technologies while their benefits and safety are being evaluated in high-quality clinical studies; and by establishing guidelines for coverage of technologies that are of comparable safety and benefit but much costlier than their alternatives. In the coming year, the Commission plans to examine more closely coverage issues for Medicare managed-care plans.

RECOMMENDATIONS

The Health Care Financing Administration should reduce variation in coverage decisions across Medicare carriers. To accomplish this goal, the agency should establish an information system that will enable it to identify inconsistencies in coverage policies across geographic areas. When divergent policies are identified, the agency should take steps to understand the basis for the variation and to achieve more consistent coverage policies.

To improve the scientific basis for Medicare coverage decisions, the Health Care Financing Administration should devote sufficient resources to enable them to be based on available evidence of the safety and effectiveness of medical services.

The Congress should authorize the following additional coverage options for Medicare:

- **For devices subject to Food and Drug Administration approval, and for other services that the Health Care Financing Administration has not approved for coverage, Medicare should pay up to the cost of standard care when the device or service is clearly substituting for an established one and is being evaluated in a Food and Drug Administration-approved or other approved study.**
- **When there is reason to believe that the degree of safety and efficacy of selected new services demonstrated in research studies may not be achieved after coverage is granted for all settings, Medicare should pay only those providers and institutions that participate in an ongoing evaluation of the service, including reporting of outcomes.**
- **When two covered services offer equivalent net clinical benefit for a particular clinical indication, but one costs substantially more than the other, Medicare should pay at the rate of the less expensive service when the more expensive one is used.**

The chapter begins by discussing the role that coverage decisions play in the introduction and use of new services. Ways to improve Medicare coverage decisions are addressed next. Coverage options for selected services of unproven benefit are described in the third section. The chapter then turns to cost considerations in coverage decisions. It concludes by outlining coverage issues in Medicare managed-care plans.

THE ROLE OF COVERAGE DECISIONS

A coverage decision is the determination by an insurer to pay for—or a managed-care plan to provide—a service for a particular clinical indication. Such decisions constitute a critical point of control over the introduction, dissemination, and use of new technologies and services. Until insurers and health plans cover a new technology, the manufacturer, health care provider, or patient must pay for it. Under these circumstances, few patients have access to these advances.

The criteria used for coverage decisions have a substantial effect on the incentives faced by innovators and manufacturers (Weisbrod 1994). Fee-for-service payment has fostered the use of coverage criteria that focus on the safety and efficacy of new technologies and treatments, without regard for their costs. This gave manufacturers an incentive to develop any new technology that would confer a net clinical benefit. When institutions and providers are paid on a capitated basis, however, they have to operate under a fixed budget. This encourages them to consider the cost as well as the effectiveness of new and existing technologies. Coverage policies of health plans, however, do not yet reflect this

transformation in the marketplace. If cost effectiveness were included as a criterion for coverage, innovation would focus on products and services that are both clinically beneficial and cost effective.

The Importance of Clinical Indications

Coverage generally must be defined in terms of specific clinical indications.¹ Coverage decisions are most useful for simple sets of indications, when groups of patients that will be treated similarly can be easily described in advance. A blood test for a specific form of cancer might be covered for assessing the results of treatment of the cancer in diagnosed patients, for example, but not for screening asymptomatic populations to detect new cases of the cancer. Medicare covers routine screening mammograms annually for women aged 50 to 64 and biannually for women over 64. These indications are relatively simple to comprehend, follow, and enforce.

The net benefit of some services can depend on complex characteristics and values of individual patients, as well as the abilities of providers and institutions. Whether a coronary angiogram is indicated, for instance, may depend on such factors as the patient's functional status and exercise tolerance, the presence and character of chest pain, the response of the pain to medication, the patient's risk factors for coronary artery disease, the heart's ejection fraction, the results of other tests, the skill of the practitioner and the facilities to be used, the patient's attitudes toward uncertainty and invasive procedures and operations, and the values he or she places on different states of illness and health.

Coverage decisions can be poor means for controlling the use of such services. It is difficult to capture all possible indications for the service in a coverage policy. In addition, it may be difficult to obtain data to determine whether the criteria for coverage are met. When coverage policies include highly detailed sets of indications, they are more difficult to comprehend, apply, and monitor. Joint doctor-patient decisionmaking can better tailor treatment to individual patients—perhaps supported by detailed computerized practice guidelines and patient-operated information systems—than can coverage decisions. The choice of method may depend partly on the resources required to derive, enforce, and update a complex set of coverage indications.

Heterogeneity of Individual Preferences

Because coverage decisions govern the availability of services for groups of people, they may not accommodate individuals whose preferences differ from those of the others in their insured group. Many patients might prefer to continue to tolerate mild symptoms of benign prostatic hyperplasia, for example, rather than undergo an invasive surgical procedure. But the same symptoms might be

¹ An indication for a service is a particular clinical circumstance in which its net benefit is positive; i.e., its expected clinical benefits exceed its risks. Indications can be expressed in terms of the patient's diagnosis, his or her signs and symptoms, the stage of the disease, the results of diagnostic tests, and the patient's response to previous treatment. Other potentially relevant considerations are age and sex, as well as patients' valuations of different states of health and their attitudes toward risk and uncertainty.

intolerable to a few patients. For them, the surgical procedure would offer a net benefit based on their own valuation of different states of health and illness. A coverage policy that restricted the procedure to patients with moderate or severe symptoms would deny the procedure to a few patients who would benefit from it. Procedures to appeal coverage denials for individual cases can be an important mechanism to ensure that special circumstances—perhaps not considered in the overall coverage policy—can be taken into account when appropriate.

There is an inescapable tension between the claims of individuals on group resources and the preservation of group resources for use in meeting other individuals' needs. Although this issue is most relevant for a public payer, it applies to private health plans as well. The question arises, To what extent should group resources fund personal choices? Coverage decisions often embody an implicit answer to this question.

In the private sector, the opportunity to enroll in different health plans might enable individuals to make choices that reflect their own values if these differ from the norm. This can work only if plans differ in the extent to which they accommodate individual choices, and these differences can be appreciated and acted on by consumers before they need to make a specific choice of care.²

Issues Concerning Coverage Decisions

Two issues related to coverage decisions are of widespread concern and debate. The first concerns coverage for new services of unproven benefit: Under what circumstances, if any, should such services be covered? Patients often want access to the latest technology or treatment. For many services, evaluation studies will be funded only if payers or the government provide some form of coverage for use of the service during clinical trials (Garber and Owens 1994). But payment for some unproven new services can waste group resources on technologies that are not found to be beneficial. Moreover, some studies may be more appropriately funded by research agencies than by insurers.

Another issue is whether and how costs should play a role in coverage decisions. Cost pressures make it imperative that payers, providers, and patients make reasoned, cost-conscious choices among alternative approaches to care. Coverage decisions can be an efficient means to decide in advance among alternative approaches to care for large groups of similar patients. Many agree that costs should have a role in such decisions, but there is little agreement on how this should be done. The Health Care Financing Administration (HCFA) once proposed a cost-effectiveness criterion for Medicare, but it was never implemented (HCFA 1989)

While these issues apply throughout the health care system, Medicare, as an important public payer, is well-situated to address them in a manner that promotes the public interest. The rest of this chapter

² A point-of-service option in a managed-care plan can be regarded as a safety valve for restrictions on access to other providers, sites of care, or alternative acceptable approaches to care. Supplemental insurance also could help individuals maintain their ability to choose alternative approaches to care, but both supplemental insurance and point-of-service options face the problem of adverse selection discussed in Chapter 9.

discusses these issues in the context of Medicare and describes the Commission's recommendations for how the program should address them.

IMPROVING MEDICARE COVERAGE DECISIONS

This section begins by describing the current process by which Medicare coverage decisions are made. It then discusses ways to improve this process, many of which HCFA is considering or beginning to implement.

How Medicare Coverage Decisions Are Made

Most coverage decisions for the Medicare program are made by its claims processing contractors, or carriers (GAO 1994). Medicare coverage policies can also be determined by specific legislation (such as for screening mammography) and by administrative decisions by HCFA that apply nationwide. In practice, the need for a coverage decision is usually prompted by submission of an individual claim for payment. Most decisions are made on a case-by-case basis. There is an appeals procedure for contesting coverage denials.

Criteria for Coverage. Legislation prohibits Medicare from paying for services that are not reasonable and necessary for diagnosing or treating a medical condition. HCFA interprets this to mean that coverage will be granted only if a medical service is "safe and effective, not experimental or investigational, and appropriate (i.e., furnished in a setting commensurate with the patient's medical needs and by qualified personnel)" (HCFA 1989). Each carrier applies these general instructions using its own specific criteria and processes. Some use the Blue Cross Blue Shield Association's criteria, while others do not use any explicit criteria (GAO 1994).³

Food and Drug Administration (FDA) approval of a new drug or device is necessary but not sufficient for Medicare coverage.⁴ Use of an unapproved drug or device is generally not covered. Approved drugs or devices are often used for an indication that the FDA has not reviewed or approved; coverage for such off-label use is generally at the discretion of the individual Medicare carrier.⁵ If a procedure or treatment does not involve a new drug or device, it is not regulated by the FDA and so must meet the basic Medicare coverage requirements of safety and effectiveness.

³ The Blue Cross Blue Shield Association technology assessment program employs the following five criteria: (1) the technology must have final approval from the appropriate government regulatory bodies, (2) the scientific evidence must permit conclusions concerning the effect of the technology on health outcomes, (3) the technology must improve the net health outcome, (4) the technology must be as beneficial as any established alternatives, and (5) the improvement must be attainable outside of investigational settings. The latter criterion requires some likelihood of effectiveness in standard practice.

⁴ Technically, most devices are not formally approved by the FDA but are cleared for marketing. Formal approval is required for devices that may pose "significant risk" to patients, such as implanted devices.

⁵ Off-label uses of cancer drugs that are listed in recognized national compendia are covered.

It is important to note that whether a service meets the criteria for coverage depends on the available scientific evidence. Merely including a service in a formal research study does not necessarily mean it is “experimental”, because effective, covered services can be used in studies, especially comparative research. This possible confusion is why it is inadvisable to use the terms “experimental” and “investigational” as criteria for exclusion from coverage. Noncovered services are simply those that have not passed the required threshold for demonstrated safety and effectiveness.

Carrier Coverage Decisions. The carriers are bound by national coverage policies when they exist. Otherwise, they make coverage decisions for new technologies in consultation with their staff and local physician representatives. The local coverage policies are supposed to be based on authoritative evidence from the scientific literature, or evidence of general acceptance by the medical community.

Each carrier develops its own process for making these decisions. Some create internal committees to perform technology assessments and make coverage recommendations; the medical directors of others make the decisions after reviewing literature and seeking informal advice (GAO 1994). Comments on draft policies are solicited from Carrier Advisory Committees, health professionals, other carrier medical directors, peer review organizations (PROs), and other interested parties. The final policy must be made public (HCFA 1995a).

In practice, local coverage policies are applied to individual cases. If coverage is denied, claims for more than \$100 can be appealed to an in-house hearing officer. If this is unsuccessful, the claim can then be appealed to a federal administrative law judge, but this rarely happens.

National Coverage Decisions. National coverage decisions are made by HCFA’s Bureau of Policy Development. It considers several factors in deciding whether a national Medicare coverage decision is warranted, including inconsistency among carrier coverage decisions, the level of agreement about the service’s safety and efficacy, and the potential for high cost and rapid diffusion of the service. Only about 10 to 20 national coverage decisions are made annually (Buto 1994).

The Bureau of Policy Development receives coverage recommendations from HCFA’s Technology Advisory Committee. HCFA sometimes publishes proposed coverage decisions in the *Federal Register*, reviews comments from the public, and then issues its final policies. The process has taken as long as several years to complete.

Technology Assessment. The Technology Advisory Committee can use its members’ technical expertise to evaluate new technologies. If a more involved technology assessment is needed, it is obtained from the Office of Health Technology Assessment (OHTA) within the Agency for Health Care Policy and Research (AHCPR). The assessments present detailed analyses of the risks, benefits, and uses of medical technologies. They conclude by recommending whether coverage is warranted. Legislation enacted in 1992 requires that the assessments consider the costs of the technology when evidence permits. OHTA also produces scaled-down versions of technology assessments, which it calls technology reviews, that do not contain a recommendation on coverage. Requests for OHTA technology assessments come from Medicare and the Civilian Health and Medical Program of the

Uniformed Services (CHAMPUS). The 1992 legislation also requires OHTA to solicit public suggestions for topics for technology assessments. Assessments are then chosen according to specific criteria.

OHTA's annual budget permits only five full-time staff, so it is able to produce few assessments. Between 1990 and 1993, the office completed an average of five assessments and four reviews per year. It often takes more than a year to complete an assessment (GAO 1994).

Avenues for Improvement

Medicare carriers' coverage decisions have been criticized as slow, inconsistent, and insufficiently based on a critical appraisal of available evidence (Buto 1994). This section outlines avenues for improvement.

Increased Standardization of Coverage Policies. Medicare has made great strides in implementing centralized, nationally uniform payment systems for hospital and professional services. By contrast, HCFA staff, carrier medical directors, and others note anecdotally that "coverage still varies widely from area to area" (Buto 1994). Even carriers and peer review organizations in the same area have occasionally rendered conflicting coverage decisions on the same patient. HCFA staff recently studied carriers' coverage policies for a particular imaging technology. They documented considerable variation, with some carriers covering the service without qualification, some for differing parts of the body, and others not at all (Sheingold 1995). HCFA recently noted that some carriers did not cover lung transplants, while others covered it on occasion based on retrospective case-by-case determinations made without published criteria (HCFA 1995b). These inconsistencies were one factor prompting a national coverage decision.

Few empirical studies have been done to quantify the extent of variation in coverage decisions. A landmark study from 1982 investigated disparities in coverage decisions for care in skilled nursing facilities (Smits et al. 1982). Claims reviewers from different regions disagreed considerably on seven of nine hypothetical cases. The researchers attributed the variation to the complexity of Medicare's coverage rules and its decentralized administration. A 1989 study of preauthorization criteria for three procedures (used by Medicare PROs to determine coverage before the procedure is done) demonstrated wide variability across geographic regions (Kellie and Kelly 1991).⁶ Carotid endarterectomy was covered in asymptomatic patients in three-fourths of the regions, for example, and the required degree of carotid artery obstruction in symptomatic patients ranged from 50 percent to 90 percent in different areas.

Coverage policies can differ because criteria and processes for making them vary among carriers, and evidence on the safety and efficacy of services can be conflicting and subject to divergent interpretations. Coverage for drugs used for purposes not approved by the FDA is discretionary, which

⁶ The requirement for preauthorization for these procedures has since been dropped.

also produces inconsistencies (Buto 1994). Some coverage policies are a response to local patterns of perceived overutilization of services. Different patterns of practice may thus give rise to different coverage policies.

There seems to be little justification for inconsistent coverage decisions. The basic characteristics of services should not vary substantially among regions, and information on safety and efficacy should be available nationwide. Medicare was originally designed to accommodate local practice patterns, but now the norms of medical practice have become more uniform nationally. The lack of consistency casts doubt on the validity of the decisions, creates problems for patients who travel to different areas, and frustrates physicians (Kellie and Kelly 1991; Buto 1994). It also raises questions of equity among beneficiaries.

Increased standardization should be achieved in two ways: Carriers should establish policies that are more consistent among themselves, and more decisions should be made at the national level. HCFA is taking steps in both directions. A computer database called the Minnesota Clearinghouse is just beginning operation. By October 1995 it is intended to provide complete on-line access to carriers' coverage policies. Each carrier is to submit its coverage policies in a standardized format for use by other carriers planning to develop a coverage policy on the same service (HCFA 1995a). Although carriers are not required to make their own policies consistent with those of others, there may be fewer inadvertent inconsistencies in the future. In addition, working groups of carrier medical directors have begun to meet to draft model coverage policies for voluntary use by all carriers.

More uniform claims processing could reduce coverage inconsistencies. Medicare claims are now processed through multiple systems in different regions. Payment policies are implemented individually by each system, which can result in variation. A future data system that is being developed, called the Medicare Transaction System, will make claims processing more uniform nationwide. It might be able to provide evidence of coverage inconsistencies, and it will permit payment rules to be applied more uniformly (Warren et al. 1994).

In addition to increased standardization of individual carriers' coverage decisions, more coverage policies should be formulated at the national level. HCFA is preparing a regulation that would set the parameters for its process for making national coverage decisions (a regulation proposed in 1989 was never finalized). It will include the factors to be considered when determining whether a national coverage decision is needed and what the carriers should do in the absence of a national policy. It is not clear, however, whether the regulation, if finalized, will result in more coverage decisions being made at the national level.

Technology Assessment. Making coverage decisions at the national level would permit them to be based on more formal, sophisticated technology assessments. As described above, Medicare's capacity to obtain timely technology assessments, however, is currently too limited. Sufficient resources need to be devoted to obtaining technology assessments so that coverage decisions rest on firm foundations.

One promising alternative is to purchase or use technology assessments performed by private sources, such as Blue Cross Blue Shield Association's joint effort with Kaiser Permanente.⁷ HCFA is planning to rely more on its Technology Advisory Committee for less intensive technology assessments. The Agency for Health Care Policy and Research may also revisit the idea of asking a consortium of insurers to provide private-sector funding of government-conducted assessments (Darby 1994).

HCFA is restructuring its overall approach to technology assessment information. It has given responsibility for coordinating technology and coverage policy to designated employees in the Bureau of Policy Development, termed the technology and special analysis staff, whose mission is to improve the agency's ability to obtain such information and use it in making coverage decisions.

Speed of Decisions. The process for making and implementing national coverage decisions needs to be accelerated. Better computerized data on carrier coverage decisions should permit earlier identification of services that require national decisions. HCFA can also use the carrier medical directors to help identify such services. The carrier medical directors have formed a new technology working group to provide a quicker response to coverage requests for new technology. Technology assessments need to be obtained faster and the time required for administrative processing of decisions should be shortened. Another source of delay is the caution that HCFA must use in granting coverage, because it is difficult to revoke coverage once it is approved. If reexamination of coverage decisions were made easier, this would help by reducing the stakes for granting initial coverage. New coverage options that would facilitate such reexamination are discussed in the following sections of this chapter.

COVERAGE OPTIONS FOR CARE OF UNCERTAIN BENEFIT

It can be difficult to judge when the available evidence justifies coverage for a new service. Knowledge of the health effects of medical services spans the spectrum from complete uncertainty about their safety and efficacy to strong evidence concerning safety and effectiveness when the technology is used in routine practice. There is no clear distinction that makes it evident when coverage is warranted. Research studies have differing strengths and weaknesses, and their results can be conflicting. Expert judgment is required to evaluate them and reach conclusions about coverage. Despite these difficulties, reasonable coverage policies are not impossible: rational, defensible decisions can be made.

In any event, the current all-or-nothing character of coverage decisions is too restrictive (Rettig 1994). To promote the development and evaluation of promising innovations, the Commission recommends that Medicare expand its coverage options. Two recommendations are discussed in turn.

⁷ This effort will double the previous output of the Blue Cross Blue Shield Association's technology assessment program. They plan to evaluate 40 procedures, devices, and drugs annually. The assessments will be available to others by subscription (Oberman 1993).

For selected medical devices and procedures of unproven efficacy, partial coverage in the context of approved research trials would benefit patients and medical innovators by supporting faster evaluation of new technologies. This would provide earlier access for all patients to services proven beneficial, and would help identify nonbeneficial services before their use becomes widespread.

The safety and efficacy achieved for a service in a research setting is not always attained when it is disseminated into all practice settings. Restricting payment to providers and settings that report data to monitor effectiveness would help ensure that patients are actually receiving the expected benefits from new technologies and would increase the knowledge base about the treatment.

Services of Unproven Safety and Efficacy

Studies to assess the safety and efficacy of a new technology or procedure can be expensive to perform. The question is, Who should fund them? Drug manufacturers can try to recoup the costs of the research needed to demonstrate safety and efficacy once their products are on the market. In these instances, public policy should rely on the supplier to fund the research.

For devices termed investigational by the FDA, a different financing mechanism may be appropriate. Devices differ from drugs in that they are typically improved incrementally and often. Each new generation of a device must have its safety and efficacy confirmed in formal studies. The difference from the previous generations device is often small, however, so that the safety and efficacy of the new one are often expected to be similar if not better. In addition, devices are typically produced by small companies that lack the resources to fund all the costs associated with a continuing cycle of improvements and testing. Private health plans have often paid the clinical costs associated with such devices when used under an investigational device exemption (IDE), in effect deeming them acceptable therapy. The charges for devices used under an IDE are limited by the FDA to the actual cost of production.

Medicare, by contrast, generally does not cover care associated with the use of investigational devices (Ault 1994). This policy underlies the recent Inspector General investigation into hospital billing for use of these devices. Some hospitals have stopped allowing Medicare patients to receive investigational devices in response to the inquiry (Scott 1995).

A third situation characterizes many surgical and medical procedures for which manufacturers cannot recoup the cost of evaluations. When a service does not significantly involve use of a patented product, no entity can exclude others from performing it.⁸ Therefore, no manufacturer or provider has sufficient financial incentive to pay for a trial of its efficacy. In such cases, some argue that knowledge about the service's safety and efficacy is a public good that should be paid for by government research funds, or perhaps by all payers combined (Garber and Owens 1994).

⁸ Recent attempts to patent procedures are controversial and have not yet been tested in the courts.

The Commission's Recommendation. The Commission recommends that Medicare pay the lesser of the cost of standard care or the experimental service in approved studies testing investigational devices as well as other services not yet covered by HCFA. These resources would have been devoted to the patient's care in the absence of the research study. The research sponsor should, however, fund the rest of the costs of the research, including the remaining cost of care plus the cost of running the study.⁹

The instances when this coverage option applies warrant careful definition. The new service must clearly substitute for care that would otherwise have been provided. The most straightforward example is when a device under an IDE is implanted instead of an existing FDA-approved device. If the patient ultimately receives the standard therapy, then substitution did not truly occur and payment should not be made for both.

It will not always be easy to identify the standard care that is being replaced. It is hard to identify which services are replaced when the alternatives involve different courses of care over time, so the difference in expense is not limited to the costs of the technologies themselves. This might be more typical of comparisons of procedural and medical approaches to care. When the new service is being compared with standard therapy in a formal study, the control arm of the study could be used to delineate standard care. In some instances, though, it will not be possible to identify standard care that will clearly be replaced by the technology under evaluation.

It is essential that coverage be provided only within research studies that will produce reliable evidence of the safety and efficacy of the new service compared to an accepted alternative. For devices and procedures subject to FDA review, payment should be made only within the studies sanctioned by the agency to provide evidence for FDA approval. For procedures not subject to FDA review, HCFA will need to develop some means to designate the studies in which this coverage option would apply. Coverage could be restricted to those funded by the federal government and by peer-reviewed organizations where appropriate. Institutional review board (IRB) approval should be required and monitored.

Services of Uncertain Benefit Outside of Research Studies

New services are usually first proven safe and efficacious in controlled research settings, which are typically the most favorable conditions in which to obtain a clinical benefit. When the services then become more widely used, the net benefit that would be predicted from the efficacy studies is not always attained. The demonstrated efficacy may not be generalizable to regular medical practice. Therefore, "efficacy" (the health benefits achieved under ideal conditions for carefully selected

⁹ The allocation of the cost of treating complications directly related to the new therapy deserves further thought. Current Medicare policy is to cover treatment of complications from noncovered therapies, unless the complications occur during the same inpatient stay in which the noncovered service was used (Ault 1994). Some argue that a research enterprise should pay for all costs that exceed what might be expected from standard therapy, including complications. Medicare's policy seems arbitrary in that a complication that occurs during a noncovered inpatient stay is not covered, while one that occurs shortly after discharge is. It would often be difficult, though, to identify when complications are additional to those that would occur with standard therapy.

patients) is usually distinguished from “effectiveness” (the results actually obtained in typical patients in the general practice of medicine). The effectiveness of a new service may be less than its efficacy because of lack of the special expertise or equipment required for the service to be most beneficial, or because the innovation is extended to patients whose severity of illness or other characteristics differ from those for whom efficacy was originally established. Effectiveness can also vary when the service is utilized for clinical purposes that differ from those in the efficacy studies.

There is no formal mechanism to restrain the diffusion of such a technology or treatment until its effectiveness is confirmed. Nor are there mechanisms to ensure that information on effectiveness is produced as the service is provided in the community. Consequently, patients may be receiving—and Medicare may be funding—services that are not benefiting them. In addition, the premature and uncontrolled availability of a technology in the community can compromise the ability to perform randomized effectiveness studies (Stolley 1993). As a result, the comparative effectiveness of the new technology may never be known. This phenomenon stymied the only randomized study of whether the drug zidovudine (AZT) is effective in preventing human immunodeficiency virus (HIV) transmission immediately after exposure. It is now affecting studies of the treatment of breast cancer with high-dose chemotherapy followed by autologous bone marrow transplant (Kolata 1995).

Two types of coverage options can help address these problems. The first is to restrict coverage of the service to settings that meet specified requirements needed for it to be most effective. The second is to permit widespread dissemination following demonstration of safety and efficacy, but with a requirement that providers report data to permit monitoring of the service’s safety and effectiveness.

Restricted Settings. When specialized expertise, equipment, or other support are required for a service to be most effective, coverage should be restricted to settings in which those requirements are met. A growing body of literature, for example, documents that outcomes for complex surgical procedures are often related to the frequency with which the procedure is done (Hosenpud 1994). This type of evidence can be used to establish requirements for performing such procedures.

Medicare uses this coverage option for selected technologies. HCFA’s recent national coverage decision for lung and heart-lung transplants, for example, states that Medicare considers the procedure medically reasonable and necessary only in facilities that meet certain criteria and can demonstrate good patient outcomes. Standards must be met for available resources, volume of operations, survival rates, patient selection, and maintenance of data (HCFA 1995b).

Monitoring. For some services, coverage should be restricted to settings in which the safety and effectiveness of the service are being formally monitored. The service could be paid for regardless of where it is performed, as long as data on benefits and complications are reported in accordance with a standard protocol.

Such monitoring could serve several functions. If the expected safety and effectiveness were not achieved, this could stimulate a study of the factors that may be causing the poorer outcomes. Providers or subgroups of patients who achieve poorer outcomes could be identified so that their

results could be improved or their use of the service curtailed. Information could be gained about the indications for which the service is actually being used. In addition, patients and practitioners could be apprised of the actual outcomes they can expect from the service to better inform their treatment decisions. Finally, if the monitoring data raised sufficient doubt about the service's effectiveness, a full comparison trial with randomization might be conducted.

Because reporting and analysis of data are not cost-free, this coverage requirement should be reserved for selected situations. One circumstance might be when the net benefit of a service depends greatly on its complication rate (e.g., carotid endarterectomy to prevent stroke). Providers or types of patients with high complication rates could be identified. Monitoring might also be worthwhile when a service is applied to different types of patients than those in whom efficacy was demonstrated initially, or for different types of indications. Required data reporting could facilitate the implementation of so-called large simple trials, in which treatments are tested in a large number of patients in community practice settings (OTA 1994).

It is important to ensure that the burden of collecting and reporting clinical data is minimal for practitioners and institutions. Clinical information is the most relevant type for monitoring of effectiveness, but it can be the most difficult and costly to obtain. Some investment in mechanisms to provide these data more efficiently would prevent reporting requirements from unduly hindering the dissemination and monitoring of the effectiveness of new services. A few data fields are available on Medicare claims for this purpose; HCFA has begun to use these for several services.¹⁰

DEVELOPING A ROLE FOR COSTS IN MEDICARE COVERAGE DECISIONS

Many new technologies provide substantial benefits. In some instances, however, the benefits are quite small. Because health care resources are limited, at some point the marginal benefits of a service may not warrant its cost. Thus, judgments need to be made regarding when the use of services is worthwhile (Schwartz 1987; Eddy 1994a).

Coverage decisions can provide a good forum in which to consider costs rationally. Scientific evidence can be reviewed critically, and the benefits and cost of a service can be estimated. The analysis and decisions should be made public. In light of these advantages to considering costs in the context of coverage decisions, it is worth exploring why health plans generally have not done so (Gleeson 1994).

Barriers to Considering Costs in Coverage Decisions

Given the pressures on health plans to cut costs, it is striking that they have not made greater use of coverage decisions to weigh the cost of care against its net health benefits. Their reluctance may stem

¹⁰ For example, code modifiers are used for positron emission tomography (PET) scan claims to report some clinical data, and erythropoietin claims contain the dosage used and the patient's hematocrit (Sheingold 1995).

from several sources, including the public's fear of rationing, difficulty specifying the costs and benefits of services, and the threat of legal liability.

The Specter of Rationing. There is strong societal resistance to considering costs explicitly in health care decisions. The public dislikes placing dollar values on life and health. The task of weighing benefits against costs is inherently value laden, and reaching agreement on what values should be applied to these social decisions is difficult. Americans seem to prefer individualism, especially on a matter as important and personal as health care. It is not just the public that has difficulty with the concept of rationing: The medical profession has also not reached consensus on the ethics of rationing (Clancy and Brody 1995; LaPuma et al. 1988). The resistance to considering costs explicitly must be acknowledged by policymakers.

The prospect of the explicit withholding of costly services that have substantial benefit, and the resulting harm to identifiable patients, is what gives rationing its strong negative connotation. It is doubtful that the public would tolerate this type of rationing, at least for insured patients. Instead, the focus of efforts to consider costs should be on services of small marginal benefit and high marginal cost. The policy challenge is to better connect benefits with their costs, to ensure that sufficient value is obtained for the nation's health care expenditures compared with other potential uses for the resources (Eddy 1990). As publicly acceptable ways to consider costs in coverage decisions are developed and implemented, the process may help educate the public, the profession, and policymakers so that they can decide better which marginal benefits are worth purchasing.

Challenges in Specifying and Comparing Benefits and Costs. The greatest obstacle to rational coverage decisionmaking is the lack of high-quality information about the expected benefits, harms, and costs of a service in likely patients. The Institute of Medicine (IOM) estimated that total expenditures for technology assessment in 1984 constituted only 0.3 percent of total health expenditures (IOM 1985). A larger investment in evaluative research is clearly needed.

Even when rigorous studies are conducted, their results can often support different interpretations. The benefit of a service usually varies for different clinical indications. Specifying costs can also be problematic: It is not always clear which costs to consider, how to value nonfinancial costs, and what price should be assigned to the new technology.

Although past studies have not always employed the best methodologies, the quality of economic analyses is improving (Adams et al. 1992). Considerable progress has been made in improving and standardizing methodologies, and guidelines are being issued and standards established (Neumann and Johannesson 1994). Other governments, including those in Australia and Ontario, have developed guidelines for economic analysis of pharmaceuticals (Neumann and Johannesson 1994). Manufacturers, especially pharmaceutical companies, are producing more data to support economic analyses (Rettig 1994). With stronger incentives and a continuing investment in personnel and methodological research, the ability of the health care system to produce sound economic analyses should increase.

Even when good data are available, weighing the benefits of a service against its risks and cost is not straightforward (Eddy 1994b). Although they can be quantified in various ways, specific criteria for making these judgments do not exist (Laupacis et al. 1992). One approach would be to compare the relative costs and benefits of a new service with those of existing services. A technology that had a cost effectiveness of approximately \$5,000 per year of life saved, for example, would compare favorably with many services now in use. If the cost effectiveness were significantly less than those of accepted services, this would be an indication that the new service might not be worth covering.

Coverage decisions should be consistent with the values and preferences of those who would receive the benefits and pay the costs (Eddy 1990). Patients and prospective patients should be asked about their preferences directly or through surveys, although both approaches require better techniques to become practical (Reiser 1993; Eddy 1990). Patients' preferences and their willingness to pay will often be heterogeneous. Today, the extent to which some individuals' preferences are not accommodated by coverage policies is implicit. The availability of data about patients' preferences in the future will make these constraints clearer. Some means are needed to help decisionmakers reach defensible, consistent trade-offs between group resources and individual preferences. In addition to using cost-effectiveness analyses for coverage decisionmaking, such information should be available to patients—and in an understandable form—to help them make treatment choices.

A complicating factor is that the costs and benefits of a new technology or procedure usually change over time. Costs often depend on the rate of use, and net benefits frequently increase as more experience is gained with an intervention. This poses a problem for making decisions based on cost effectiveness, because the calculus might disfavor a new service today but become compelling in the future. It would be undesirable to stifle the development of new technologies that will become worthwhile in the long term. Progress might be prevented were coverage to be denied based on the current characteristics of a service. But there is not enough money available to invest in all potentially good ideas, and it is difficult to predict which services will become more cost effective over time.

Legal Liability. Private health plans may be reluctant to consider costs in coverage decisions because they fear legal reprisal. They have had mixed success with denying coverage for therapies of unproven benefit (Ferguson et al. 1993; Herrington 1993). To exclude services of proven—even if only marginal—benefit based on their level of cost effectiveness might expose plans to considerable liability.

A Step Toward Considering Costs in Medicare Coverage Decisions

The Commission believes that costs should begin to play a role in Medicare coverage decisions, but it is concerned that the barriers to weighing net benefits against their costs may be too high today. Consequently, the Commission is recommending only that a first step be taken toward considering costs in Medicare coverage decisions. The experience gained should help Medicare, private payers, and the public address more difficult decisions involving costs in the future.

When two covered services offer equivalent net clinical benefit for a particular clinical indication, the Commission recommends that Medicare pay at the rate of the less expensive service when the more expensive service is used. The Commission sees no reason for Medicare to pay substantially more to obtain the same benefit that a less expensive service would provide. This recommendation applies to services that are considerably more expensive than their alternatives. It does not apply to services that have different levels of safety or effectiveness.

This approach is simply smart purchasing. It would not preclude access to the more expensive service. Providers and manufacturers could subsidize the difference if they wish, or patients who desire the costlier service could pay the difference, perhaps with supplemental insurance.

Compared with a strict criterion of cost effectiveness, this proposal has the advantage of providing partial funding to permit learning to reduce costs and improve effectiveness. It could be applied to existing services as well as new technologies. Both services would be covered for the same patient if necessary.

Prior Experience With Similar Coverage Policies. Medicare already applies this coverage option to all durable medical equipment (DME) such as wheelchairs or whirlpool baths. When there is a medically appropriate and feasible alternative that could be used instead of a much more expensive option, Medicare will pay only the cost of the cheaper item for either. This is termed the “least costly alternative reduction” (HCFA 1975). Medicare prohibits suppliers from charging patients for the difference.

There is also some favorable experience outside of Medicare with coverage policies similar to that proposed by the Commission. South Dakota’s Medicaid program, for instance, requires for coverage that “there is no equally effective course of treatment available or suitable for the recipient requesting the service which is more conservative or substantially less costly” (Bergthold and Sage 1994). The provision has reportedly been useful, particularly in discussions with providers about proposed treatments. It has usually been applied to products such as durable medical equipment. The provision has not been specifically challenged in court.

One private health plan requires that a procedure, service, or supply not be “more costly than alternative services that would be effective for the diagnosis and treatment of your condition” (Bergthold and Sage 1994).¹¹ The medical director of this plan has successfully applied this criterion to imaging technologies and laboratory tests that have similar diagnostic efficacy.

The ability to select the least expensive of equivalent forms of therapy is vital to managed care. Kaiser Permanente reportedly uses a coverage policy similar to that recommended by the Commission

¹¹ Several private plans impose a requirement that the “level” of service provided be the least costly, but this seems to refer more to the manner in which a service is provided than to the choice of service. This might mean, for example, the least intensive site of service that is satisfactory (outpatient rather than inpatient). Examples of this criterion include the requirement that a covered service be “the most appropriate and cost effective level of service or supply which can safely be provided” and “the least costly level of service that can be safely provided” (Bergthold and Sage 1994).

(Lairson 1994). The restricted drug formularies used by many health maintenance organizations (HMOs) usually reflect decisions to use the less costly of several equivalent drugs within a class of drugs. Other purchasing decisions of HMOs, e.g., for equipment, presumably reflect a similar strategy.¹²

Applicability of This Coverage Option. This coverage policy would not be applicable to many services because their net benefits are not equivalent to those of their alternatives. Usually there is some difference in efficacy or safety. One alternative may result in less morbidity when it works, for example, but greater mortality when it does not. Both services should then be covered in full. Some technologies offer a clinical advantage only for certain groups of patients. Those groups should then be defined in advance, and the service should be fully covered for them. Patients who cannot have the less costly alternative because of a previous severe allergic reaction would qualify, for instance.

A more difficult situation is when there is a minimal difference in clinical benefit between two alternatives. There are no criteria for determining when the difference in net clinical benefit would be sufficient to merit full coverage for the more expensive service. One option would be to permit *any* advantage, no matter how small, to render this coverage policy inapplicable. This would narrow the scope of the policy, but it would still be useful. It is likely, however, that methods can be devised to decide when differences are so negligible as to be unimportant. Such judgments would be no different in kind or difficulty than many others that must be made by coverage decisionmakers.¹³

Despite these difficulties, there are likely to be important instances when this coverage option could be usefully applied. The sensitivity and specificity of different methods of diagnostic imaging can be compared for particular clinical indications. Unless the more expensive mode is better, the lower price should be paid. One example is magnetic resonance imaging (MRI). Computed tomography (CT) and MRI are equivalent for many imaging purposes, but MRI is significantly more expensive. As long as MRIs cost substantially more than CTs, payment could be limited to CT levels for all indications for which MRI does not provide any clinical advantage. Had this coverage policy been applied when MRI was introduced, it would also have created an early incentive for MRI's proponents to conduct high-quality studies to demonstrate its comparative effectiveness.

The limited applicability of this coverage policy will permit HCFA to gain experience with the data and processes needed to consider costs in an appropriate fashion, and will give suppliers an incentive to generate information on costs and comparative safety and efficacy. This will prove invaluable as

¹² Southern California Kaiser Permanente has actually used a broader form of a cost-effectiveness criterion when it decided to use (i.e., cover) high-osmolality contrast media in low-risk patients (Eddy 1992). The small gain in safety from using low-osmolality contrast media in such patients was not deemed worth the cost compared to other uses of the money.

¹³ The situation is analogous to the problem of heterogeneous patient preferences discussed in the first section of this chapter. Some coverage decisions will override some individuals' preferences. With the cost criterion recommended by the Commission, however, coverage for the service would not be completely foreclosed; payment would simply be reduced to the level of the less-expensive service.

Medicare and private health plans try to develop an appropriate role for costs and comparative safety and effectiveness in medical decisions.

COVERAGE ISSUES IN MEDICARE MANAGED-CARE PLANS

Coverage policies under fee-for-service Medicare have important implications for Medicare managed care. Under existing statutes and policy, Medicare HMOs seemingly are obliged to provide Medicare enrollees with access to all services covered under Part A and Part B (Richardson 1995).

This raises fundamental issues concerning coverage. There may be a conflict between Medicare HMOs' ability to manage care and the requirement that they provide access to care that is covered by fee-for-service Medicare. It is not clear when and to what extent the care furnished by the HMOs should be permitted to differ from that available in fee-for-service Medicare. Medicare HMOs' restrictions on access to some services may be justified by the additional services that they may offer to patients, such as prescription drug benefits. Another question is whether HMOs are bound by local Medicare carrier decisions or are empowered to interpret and apply national policies independently.

Other issues are raised by the Commission's recommendation concerning payment up to the cost of standard care for certain services and devices in approved trials. Should HMOs be required to allow their Medicare enrollees to participate in such trials outside of the HMO and contribute the cost of standard care? An additional complication is when "standard care" would have been different in the HMO than in fee-for-service Medicare. Even when the content of standard care can be specified, its cost for the HMO may be difficult to determine.

Procedures for resolving coverage disputes are important in determining coverage for a particular patient. HCFA requires Medicare managed-care plans to have administrative procedures to reconsider coverage denials (HCFA 1994). Beneficiaries can subsequently appeal managed-care coverage decisions to the agency and then to an administrative law judge. Proper functioning of this appeal mechanism must be assured.

As more Medicare beneficiaries enroll in managed-care plans, coverage issues will become more salient. The Commission plans to explore these topics in the coming year.

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TELEMEDICINE SERVICES

Telemedicine, one of the newest health care technologies, has captured the interest of policymakers and health care providers alike. Telemedicine is an infrastructure for furnishing an array of individual services that are performed using telecommunications technology. The technology is evolving in response to developments in telecommunications itself and as new applications are found for the delivery of health care. The number of applications is growing, effectiveness is improving, and startup and operating costs are declining.

Although telemedicine potentially could transform the way many health care services are delivered, for Medicare and other payers it poses a more immediate policy dilemma. Payers must make coverage decisions for each service and must determine how to structure fees to ensure access to quality health care at reasonable costs. While many are optimistic about the ability of telemedicine to expand access to care and improve productivity, payers also are concerned about its effectiveness and costs in the long run.

At this time, there is no national Medicare coverage policy for telemedicine services. Nevertheless, Medicare may pay for telemedicine services that do not involve patient contact, such as use of teleradiology or telepathology for interpretation of diagnostic tests. Providers are not paid, however, for telemedicine services that entail face-to-face patient contact, such as teleconsultation or emergency triage and evaluation. Patient-contact telemedicine services raise policy issues regarding payment for multiple providers and impacts on service volumes, which could drive up Medicare costs.

To make informed coverage decisions, payers need a clear taxonomy of telemedicine services, along with credible information on how different coverage and payment structures for these services might affect costs. Several issues should be resolved before Medicare coverage of telemedicine applications can be offered without risking undue escalation of Medicare costs. Among these are:

- lack of information on the value of telemedicine applications compared with the traditional services they would replace,
- potentially large increases in utilization and costs if telemedicine services improve access to care,
- barriers to the sustainability of telemedicine systems in some rural markets, and
- uncertainty about whether various telemedicine payment methods might stimulate excess service use or otherwise affect service patterns.

Other issues that are unrelated to payment also will affect the integration of telemedicine services into health care delivery. These include:

- absence of professional standards or practice guidelines for appropriate use of telemedicine services;
- state medical licensure laws that have restricted clinical specialists from serving as consultants across state lines;
- greater medical liability exposure where telemedicine changes physician-patient relationships or local standards of care; and
- unique requirements related to patients' informed consent for telemedicine services and recording of sessions, and confidentiality of electronic medical records.

This chapter provides an overview of the current status of telemedicine services, with emphasis on its implications for Medicare coverage and payment policy. It first summarizes the history and current state of development of telemedicine applications, describing a taxonomy of telemedicine services based on their readiness for health insurance coverage. Issues involved with Medicare coverage and payment decisions then are examined, including options for structuring payments for these services. Design requirements are suggested for studies to evaluate payment options to ensure that they result in reliable information on which to base payment decisions. Finally, several additional issues unrelated to payment are identified, which will influence future growth and evolution of telemedicine services.

WHAT IS TELEMEDICINE?

Indicative of an emerging technology, consensus on the definition of telemedicine has eluded policymakers, practitioners, and analysts. One definition of telemedicine that reflects its potentially broad application in both national and international health care markets is “the practice of health care delivery, diagnosis, consultation, treatment, transfer of medical data, and education using ... audio, visual, and data communications” (Kansas Telemedicine Study Group 1993).

Three underlying characteristics help define this technology. First, telemedicine is but one set of applications for a growing telecommunications infrastructure that is transforming almost all industries. Thus, it will continue to change as this infrastructure expands and becomes more sophisticated. Second, at this time, telemedicine offers a new way of providing the same services that medicine already has been using, rather than adding new diagnostic or therapeutic capabilities. Its potential benefits will derive from enabling patient care to be delivered by providers who are physically separated from the patient or each other. Third, telemedicine has the potential to improve medical capabilities over time, as its infrastructure allows medical data to be integrated and new applications to be developed.

A telemedicine system consists of three components: the telecommunications infrastructure, the telemedicine infrastructure, and a set of telemedicine applications. All telecommunications and most telemedicine infrastructures are technologies that can be applied to many fields (Kansas Telemedicine Policy Group 1993). The telecommunications infrastructure provides the technology to move information electronically between geographically dispersed locations. Participating sites are linked through electronic networks.

The telemedicine infrastructure consists of the equipment and processes used to acquire and present clinical information and to store and retrieve data. Acquisition and presentation technologies include teleconferencing, data digitizing, and display (e.g., remote X-ray, laboratory tests); text processors (e.g., scanners, fax); or image processors (e.g., video cameras, monitors). Data storage and retrieval include storage devices (disks, tape, CD ROM), along with technology to compress, transmit, and store data. Although most of these technologies have more general application, some are unique to telemedicine.

The telemedicine applications are the health care functions performed across two or more locations. These services can be grouped into four general categories: (1) remote interactive communication between physician and patient or between two physicians, (2) noninteractive transmission and storage of clinical images or data for interpretation, (3) medical administration functions, and (4) medical education. Examples of interactive uses are emergency triage and evaluation, consultations for postsurgery followup, psychiatric evaluations, and patient education. Examples of noninteractive uses are interpretations of electrocardiograms, echocardiograms, X-rays, or computed tomography (CT) scans and diagnosis of lesions in tissue samples. Medical administrative uses include electronic medical records, billing, and scheduling. Among the medical education functions are video classes for continuing medical education, various kinds of videoconferences, and remote grand rounds.

The parts of a telemedicine system that users see are the rooms and equipment at their local sites. Each site has the basic equipment for communicating with other sites in its network and the specific applications it has established. There might be equipment for specific diagnostic applications, such as CT scan, echocardiogram, or biopsies, which could be in different locations. One room in the facility might be equipped for teleconsultations with video cameras, monitors, microphones, equipment to transmit or display data or images, and diagnostic equipment such as an electronic stethoscope. To conduct a teleconsultation, physicians and patients must go to these rooms at their respective sites.

EVOLUTION OF THE TECHNOLOGY

Among the first telemedicine programs in this country were demonstration projects funded in the 1960s and early 1970s by government agencies. These programs included neurological and psychiatric evaluation services in Nebraska, mobile telemedicine for rural health care on the Papago Indian reservation in Arizona, services to jail inmates in Florida, and a nursing home project in Boston. The programs demonstrated that some telemedicine applications could be effective, measured as no consistent differences in quality of care compared with traditional services. Virtually all these

programs were discontinued when funding was withdrawn because they were not self-sustaining (Grigsby, et al. 1993).

After a decline in activity during the late 1970s, telemedicine reemerged as a promising technology, largely because of the expanded capabilities of telecommunication systems and improvements in telemedicine applications. Most of today's large-area telemedicine networks are designed to improve access to care for rural residents by connecting a tertiary hospital or other facility with one or more rural sites. Some applications, such as teleradiology or medical education, are being used increasingly by urban providers.

Most early telemedicine programs were single-purpose applications that tended to emphasize technical diagnostic procedures rather than remote consultations between physicians and patients. The newer systems are more comprehensive, providing a range of medical and educational services and allowing integration of patient data from a variety of sources. Teleconsultations have become important components of these systems, and image transmission technology has improved for other diagnostic procedures (Grigsby, et al. 1993; Kansas Telemedicine Policy Group 1993). Although costs remain high, they have decreased as the technology has matured and can be expected to decline even further (Grigsby, et al. 1994a).

To many who have worked with telemedicine or followed its evolution, the uncertainty regarding its future is not whether it will exist, but what roles it will have in the health care system. As the technology becomes more sophisticated and costs continue to drop, telemedicine systems will become more accessible for physician practices, institutional settings, home-based care, and other providers. The costs of telemedicine systems and their impact on demand for services are pivotal policy issues for payers, however, as they determine whether and how to pay for telemedicine services. Their coverage decisions will help shape the future growth and evolution of the technology.

EFFECTIVENESS OF TELEMEDICINE APPLICATIONS

Any new health care technology, including telemedicine services, must be determined to be clinically effective before it can become a candidate for insurance coverage. Because individual telemedicine services are at different developmental stages, they are at varying levels of readiness for insurance coverage. Effectiveness does not guarantee coverage, however, because payers may decide not to cover a service if it fails to meet other standards such as equivalency with other treatment options or cost effectiveness.

Although in principle the effectiveness of each telemedicine service should be evaluated, it is impractical and prohibitively expensive to do so. One reason is the sheer number of applications. Another is the difficulty in designing controlled studies, including comparisons with equivalent existing services, to measure the performance and costs of telemedicine services effectively. Comparisons are particularly difficult for existing services that do not have formal practice standards, such as evaluation and management services.

Experience with setting standards for teleradiology procedures highlights how difficult it is to measure comparability. Thus far, teleradiology standards are among the few formal telemedicine standards established by professional organizations (American College of Radiology 1994). For some applications, these standards have been criticized as too stringent and, therefore, as holding teleradiology to a higher standard than that for traditional radiological procedures. For others, standards may not be stringent enough to achieve comparable diagnostic accuracy. Primary diagnostic interpretation of difficult bone fractures, for instance, is less accurate using teleradiology than the original X-ray films (Scott et al. 1993).

In one study performed for the Health Care Financing Administration (HCFA), a taxonomy was developed to summarize current information on the performance of telemedicine applications. The taxonomy classifies applications into one of four categories according to their readiness for insurance coverage and payment, based on what is known about their effectiveness and costs. The categories are applications that (1) are effective and probably have limited impacts on health care costs, (2) probably are effective but have unknown cost impacts, (3) are not yet proven to be effective, and (4) are emerging and untested technologies (Grigsby et al. 1994a). Applications in the first two categories are the strongest candidates for insurance coverage.

The first category includes applications that generally are accepted as effective and are not expected to increase payer costs substantially, but for which information still is needed on how to structure coverage policy and payments. Among these are:

- initial urgent evaluations, triage decisions, and pretransfer arrangements, often in emergency or trauma situations;
- medical and surgical followup and medication checks, with or without the primary care provider present at the remote site; and
- primary care supervision and consultation where a physician is not available at a remote site.

Applications in the second category are those that probably are effective, but whose potential effects on the health care system are unknown because they have not been widely used. Examples include:

- diagnostic evaluations, such as interpretation of transmitted images or data and video consultations with a patient or physician;
- extended diagnostic workups or short-term management of conditions involving a limited number of sessions, which may not require the presence of a primary care physician; and
- open-ended chronic disease management that requires a specialist who is not available locally but does not need the presence of a primary care physician (e.g., dialysis or management of chronic disability).

Emerging telemedicine applications fall in the third and fourth categories. The third category consists of unproven or untested applications that require additional basic research on their safety and effectiveness, including some imaging or auditory (e.g., cardiac auscultation) procedures and telerobotic laparoscopic surgery. The fourth category is emerging and untested technologies that are not yet candidates for effectiveness evaluation, such as the data glove for virtual palpation or robotics for orthopedic and other surgical applications.

EXPERIENCE OF EXISTING TELEMEDICINE SYSTEMS

Most telemedicine systems have been implemented to increase access to health care for rural residents. These systems also have been adopted to strengthen rural communities by enhancing local health care resources. Through telemedicine, it may be possible to retain rural patients for care by local physicians and hospitals. In addition, telemedicine may help foster interactions of local physicians and other providers with those in other locations, thus reducing their isolation and supporting their continuing professional education (Office of Rural Health Policy 1994c; Information Infrastructure Task Force 1995).

Some applications, such as medical education, teleradiology, and other digitized diagnostic tests, also are being used in urban areas. It is probably only a matter of time before telemedicine is more widely adopted in urban settings (Grigsby, et al. 1994b). Anticipation of expenditure increases associated with this growth has made payers reluctant to cover the services.

Comprehensive information is not available about the extent to which telemedicine services are being used in this country. The Office of Rural Health Policy, within the U.S. Department of Health and Human Services, has funded a study to obtain such information on rural applications of telemedicine services and to evaluate experience with existing systems. This study will develop comprehensive profiles of where and how telemedicine is being used, and it will use this information to define a minimum dataset for routine collection of information on telemedicine services. The study also will set up an evaluation framework for examining the benefits and costs of telemedicine based on clinical use and functional technology (Gaumer et al. 1994).

Another source of information is the Telemedicine Information Exchange (TIE) operated by the Telemedicine Research Center in Portland, Oregon, in conjunction with the newly formed Clinical Telemedicine Cooperative Group. HCFA has provided funding to help support development of this collaborative research effort. The TIE database will include information on telemedicine research, bibliographies, telemedicine projects, funding, and news on current activities and products (Telemedicine Research Center 1994). The TIE has the potential to develop complete and comprehensive information on telemedicine activity, although it will require time to become fully established.

Rural Telemedicine Systems

Relatively few telemedicine systems have been in operation long enough to establish a track record. Among these are four rural systems in the states of Georgia, Kansas, Texas, and West Virginia. These

systems, described below, show that the uses of telemedicine vary as widely as the needs and preferences of the local communities and providers.

Medical College of Georgia. Initiated in 1991 with funding by the state and the local telephone and power companies, this telemedicine network has been serving a growing number of rural sites. The system provides interactive video consultations, including use of adapters for transmitting images from otoscopes and ophthalmoscopes, as well as microcamera transmission of images from endoscopes, cystoscopes, microscopes, and others. It also provides teleradiology through both video and digital transmission of images. Insurance payment has been negotiated with Blue Cross Blue Shield of Georgia, and Medicare payment is being provided on an experimental basis (Grigsby et al. 1994a).

University of Kansas. Initiated in 1988 by a pediatrician who felt growing isolation from subspecialty consultants, this network consists of five rural sites connected to the university as the central hub. The system, which is operated in conjunction with the Kansas Area Health Education Center program, emphasizes clinical consultation. It provides interactive video consultations, including teleradiology capability, which have been used for consults in oncology, neurology, psychiatry, surgery, and pediatric cardiology. Most of these consults have been scheduled appointments, with only a few emergency uses. Clinics in neurology and cardiology are held, and other clinics are being planned (Grigsby et al. 1994a).

Texas Telemedicine Project. This system began operation in 1991, following completion of a study to develop a model for statewide telemedicine systems. It is operated by a not-for-profit organization and is supported wholly by private funding from corporations and foundations. The system brings services from a medical clinic, hospital, and state youth commission in Austin to health care facilities in Giddings, Texas. The network provides interactive specialty consultations in allergy, cardiology, dermatology, nephrology, neurology, psychiatry, pulmonology, rheumatology, and urology (Preston 1993).

West Virginia University. Beginning in 1985 with telephone consultations, a broader telemedicine system was established in 1990 by adding video consultations, called Mountaineer Doctor Television (MDTV). The network consists of two hubs and six rural sites, and it receives grant support from the federal Office of Rural Health Policy. If a telephone consultation indicates the need for an interactive video consultation, the consultation either is arranged immediately or scheduled for a later time, depending on the urgency. Electronic stethoscopes, otoscopes, and ophthalmoscopes, as well as video-transmitted teleradiology, are provided at each site. To date, use of the MDTV capability has been low (D'Alessandri et al. 1994).

Telemedicine in Urban Settings and Integrated Delivery Systems

Little information is available about how urban providers or integrated delivery systems are using telemedicine services. It is important to understand how telemedicine is diffusing in these settings, where most people receive their health care services. In particular, information should be developed on the use of telemedicine services by health maintenance organizations (HMOs) and integrated delivery systems. Because managed-care organizations have strong cost control incentives, they

would be likely to invest in telemedicine applications that offer a return on their investment through improved productivity. Cost effectiveness of telemedicine in managed-care organizations may not be fully generalizable to the fee-for-service sector, however, if part of the savings is due to inherent efficiencies of managed care that fee-for-service providers are not able to achieve.

According to anecdotal information, use of digital transmission and storage of diagnostic tests by urban providers may be increasing. Many academic medical centers, for example, are using teleradiology to improve their productivity and reduce the incidence of lost X-ray films.¹ Health care organizations also are using video conferencing for continuing medical education and other kinds of conferences. As equipment is installed in more facilities, expansion into teleconsultations and other patient care applications seems a natural next step.

It does not appear that HMOs have invested yet in many telemedicine applications. Little is known about how they are using the technology, although informal contacts indicate that some HMOs are in the early stages of evaluating some applications. Managed-care associations have not been collecting information on their members' use of telemedicine.

Funding of Telemedicine Systems

Both public and private organizations have provided financial support to supplement investments by health care providers in their telemedicine systems. Private funding has come from foundations, other not-for-profit organizations, and businesses. Funding from telecommunications firms and telemedicine equipment vendors has been an important source of support, allowing these firms to refine their products and increase their client base. Information is not available, however, about the amount of funding provided by the private sector. Substantial public sector funding has come from state governments and federal agencies, including the National Library of Medicine, Health Care Financing Administration, Office of Rural Health Policy, Agency for Health Care Policy and Research, Rural Electrification Administration, and Department of Defense (Information Infrastructure Task Force 1995).

The federal Office of Rural Health Policy sponsors a program of three-year grants to develop information for systematic evaluation of rural telemedicine systems and to facilitate development of rural health care networks through the use of telemedicine. In 1994, 12 rural telemedicine projects were awarded grants totaling \$5.3 million. Of these projects, 11 are new programs funded at \$250,000 to \$500,000 apiece. The grants will be used to purchase and install telemedicine equipment and begin system operation.² The other project, at West Virginia University, received \$800,000 in its third year of funding for its MDTV program (Office of Rural Health Policy 1994b).

¹ This information was provided by a representative of a teleradiology equipment vendor.

² The funded projects are High Plains Rural Health Network (Colorado, Nebraska, Kansas), University of Kentucky Medical Center (Kentucky), University of Minnesota Hospital and Clinic (Minnesota), University of Missouri-Columbia Health Sciences Center (Missouri), Deaconess-Billings Clinic Health Systems (Montana), Good Samaritan Hospital (Nebraska), Mary Imogene Bassett Hospital (New York), East Carolina University School of Medicine (North Carolina), University of North Carolina Program on Aging (North Carolina), Rapid City Regional Hospital (South Dakota), and University of Washington School of Medicine (Washington, Alaska, Montana, Idaho).

HCFA has awarded four grants for rural telemedicine infrastructure development in Iowa (two projects), West Virginia, and North Carolina. The West Virginia and North Carolina projects are among those also funded by the Office of Rural Health Policy. As these projects become operational, HCFA plans to use the experience and cost information developed to test payment options, which may include use of Medicare waivers for experimental payment methods (HCFA 1994).

Sustainability of Telemedicine Systems

Currently, few telemedicine applications are self-sustaining due to high capital and operating costs and low service volumes. One important reason for this problem is that, until recently, telemedicine services were not covered by health insurance. Coverage still is limited to a few experimental sites, and probably will not be broadly available until telemedicine offers proven performance at reasonable costs.

Several market barriers also are restricting the growth of telemedicine activity. These include the limited number of applications with proven effectiveness, high capital costs, incompatibilities among systems within the infrastructure, high transmission costs, state licensure laws that limit medical practice by out-of-state physicians, resistance by physicians, and the small size of many markets (American Telemedicine Association 1993; Grigsby et al. 1994a; Information Infrastructure Task Force 1995).³ Technological and cost barriers are expected to decrease as telemedicine applications are refined and the telecommunications infrastructure expands.

Small population size, predominantly a characteristic of rural markets, is a structural market barrier because a small population generates low service demand for telemedicine services. Although only a small portion of the country's population lives in these small markets, these residents are among those who might benefit most from telemedicine services by gaining greater access to needed health care. Financial incentives in the form of tax incentives or low interest loans or regulatory assistance such as lower transmission rates might be required to overcome this barrier.

The reluctance of physicians to use available telemedicine services may be a key reason for the slow growth in service activity for rural telemedicine systems. Among the factors suggested anecdotally as influencing physician attitudes are concerns about quality, control of patient care and referral relationships, convenience, and payment for their services. Some physicians may think that lack of face-to-face contact and tactile diagnostic information in video consultations compromises their ability to deliver quality care. Some rural physicians may fear they will lose patients to urban physicians and hospitals that are using telemedicine networks to increase their own service activity. Some also may feel their professional autonomy and credibility are threatened when they are compared with physicians practicing in urban locations. Finally, some may be reluctant to change the way they practice medicine. These issues may become less important as physicians gain experience and familiarity with telemedicine services.

³ Medical licensure, which is a regulatory issue, is discussed later this chapter.

Design of telemedicine sites and services also may be discouraging use of these services. For example, some facilities have placed their video consultation rooms in locations that are inconvenient for physicians and patients. These choices may be a result of having grant funding rather than being paid for services delivered. With grant funding, systems receive their funds regardless of how many patients they serve. Under insurance, where payment is tied to service activity, systems would have an incentive to be more responsive to user needs and preferences.

MEDICARE COVERAGE AND PAYMENT ISSUES

Telemedicine poses many of the same payment policy questions that are involved with any emerging medical technology. It differs, however, because it is an infrastructure for the provision of a variety of services rather than a single new clinical capability. Medicare coverage decisions must be made for each individual telemedicine service. The willingness of Medicare to cover telemedicine, as well as the payment methods it uses, likely will influence policies of other payers (Office of Rural Health Policy 1994c).

HCFA has the regulatory authority necessary to establish Medicare coverage and payment policy for telemedicine services just as it does for any other new health care technologies. In making these policies, HCFA considers the effectiveness and medical indications for each telemedicine service, as well as the potential effects of different coverage and payment options on Medicare costs (HCFA 1994). (Chapter 6 provides a broader discussion of Medicare coverage policy and issues involved in coverage decisions for new technologies, of which telemedicine is one example.)

Key issues pertinent to telemedicine services are the value they offer compared with traditional methods of performing the same services, and their potential to escalate Medicare costs by stimulating overuse of health care services. When evaluating telemedicine applications, HCFA often faces decisions regarding how much it is willing to pay for expected improvements in health care delivery. Evaluations should consider the possible added value of telemedicine services through their potential to:

- expand or protect access to care for underserved populations,
- increase efficiency in service delivery,
- improve quality of care through integrated approaches, and
- strengthen capabilities for emergency medical services.

There is little information available regarding how insurance coverage for telemedicine might affect service use patterns or the extent to which it might stimulate overuse of services. Coverage would eliminate a financial barrier by paying providers for each service delivered and reducing patients' costs. Presumably, some telemedicine services would substitute for traditional services, particularly in

urban areas, which could offer greater convenience for patients and providers at no additional cost. It also may be presumed that, by increasing access to care for residents of underserved areas, telemedicine coverage would elevate their service activity and costs to levels comparable to those of most urban residents. It is not known, however, how much inappropriate service demand might be stimulated in either urban or rural areas.

HCFA has different payment policies for telemedicine services that involve patient contact (e.g., consultations) and those that do not (e.g., interpretation of diagnostic tests). Providers are not paid for telemedicine services involving patient contact, such as teleconsultation or emergency triage and evaluation, because they do not satisfy current HCFA requirements that services be performed "face-to-face." HCFA does allow payment for interpretation of diagnostic tests and other non-contact services. In the absence of national Medicare coverage policy, carriers have discretion to pay for telemedicine services. With only a few exceptions, carriers have chosen not to do so because of the complexity of issues involved.

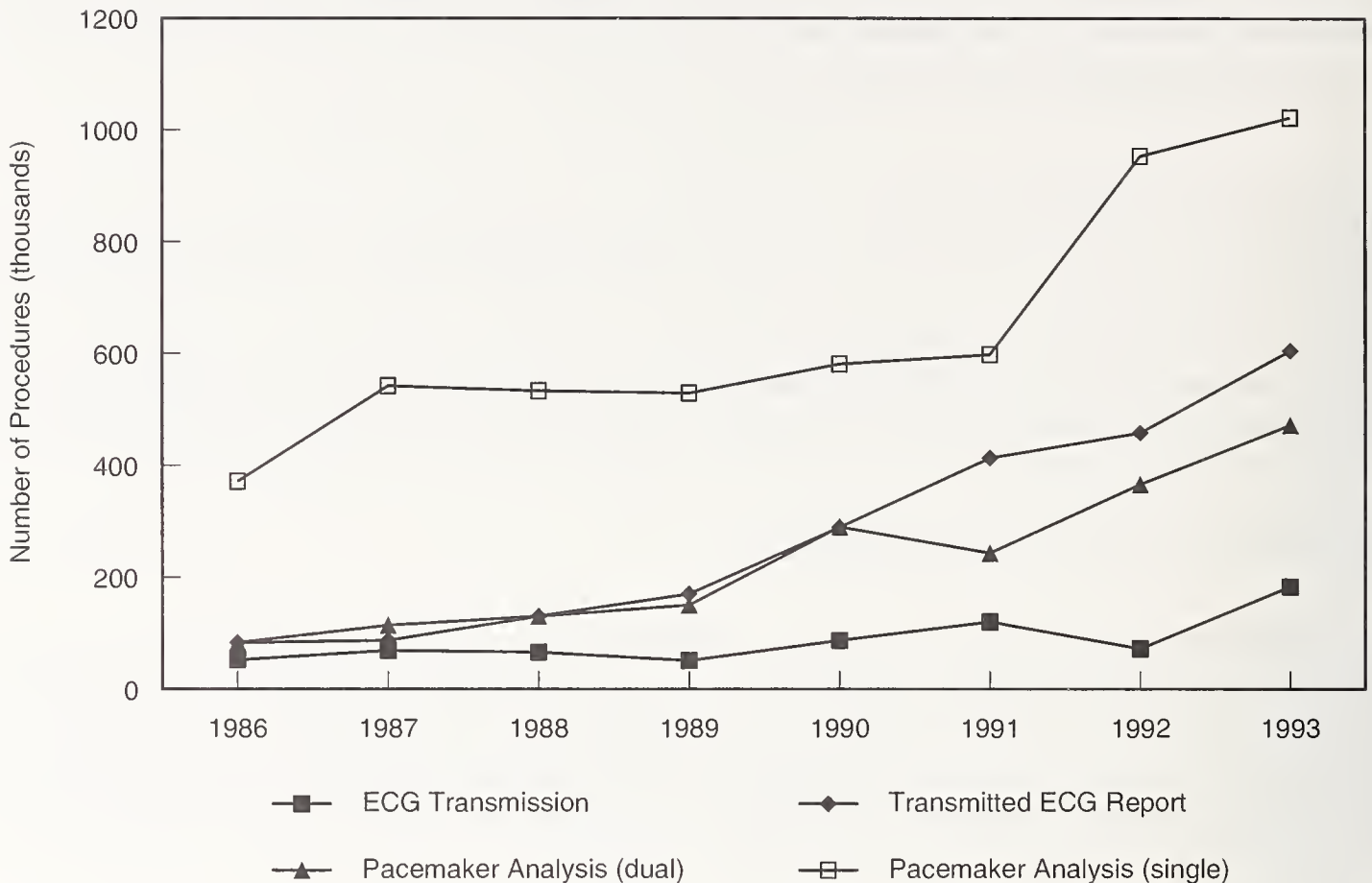
Telemedicine Services Covered by Medicare

HCFA's current policy for telemedicine services not involving patient contact is to pay the same fees that would be paid for traditional services. For example, HCFA will pay physicians for interpretation of X-rays whether the physicians obtain the X-rays in their own facilities, by mail, or by electronic transmission. This policy leaves to providers the clinical and financial decisions regarding the media they will use for such services, and it assumes that providers are making choices of technological capability based on current standards of practice.

Unfortunately, because providers use existing procedure codes to submit Medicare claims for teleradiology, telepathology, and other noncontact services, information about trends in service volumes and expenditures is not available for most of these services. At this time, only four telemedicine services have their own procedure codes: electrocardiogram (EKG) transmission, reading the transmitted EKG report, and analysis of either dual or single chamber pacemaker systems. Volumes of these services have grown from 1986 to 1993, especially for reading of EKG reports and analysis of the single chamber pacemaker (Figure 7-1). Although these trends raise questions about possible overuse of services, further analysis would be required to better understand the trends and their net effects on quality of care and Medicare costs.

It would be desirable to collect additional information on providers' use of telemedicine diagnostic and monitoring services for Medicare beneficiaries. One approach would be to establish modifiers to existing procedure codes for telemedicine applications. Because these modifiers would not determine fees, however, providers would have little incentive to use them, and use of telemedicine services probably would be underreported. Despite this limitation, separate modifiers would provide information on telemedicine diagnostic service activity that currently is not collected, which could be used to guide more rigorous analysis on the effects of telemedicine on Medicare radiology and pathology service volumes.

Figure 7-1. Medicare Volume of Telemedicine Services that have Procedure Codes, 1986-1993



SOURCE: Physician Payment Review Commission analysis of 1986-1993 Medicare claims, 100 percent summary file.

Teleconsultations

Telemedicine services that involve interactive video communication pose the most difficult policy concerns because they change the roles of participating providers. Depending on the nature of a teleconsultation, physicians' work may be different than their work for the comparable face-to-face consultation. Many video consultations involve two physicians or a physician and a nonphysician practitioner, as well as technical support provided by the site facility, all of whom want to be paid for the services they provide.

Two examples show the complexity of payment issues for teleconsultations. An emergency teleconsult with a specialist that occurs during a patient's visit to a primary care physician would involve two physicians. In this case, it should be acceptable to pay both, because the encounter would be equivalent to the two sequential face-to-face visits that it would replace, one with the primary care physician and the second with the specialist. A more difficult case is a teleconsult that is scheduled separately following a primary care physician visit, in which both physicians participate with the patient. These two encounters would involve three physician visits (two primary care and one

specialist), rather than two face-to-face visits if the patient had traveled to see the specialist after the primary care visit.

Another relevant issue is that coverage of video consultations would reopen the question of payment for telephone consultations. Medicare does not pay physicians for telephone consultations, presumably because of concern that coverage would lead to excess use and costs. For some applications, however, telephone consultations have been found to be of comparable quality to video consultations at lower cost (SCI Systems, Inc. 1974; Conrath et al. 1977). If payment was provided for video consultations but not for telephone consultations, physicians would have an incentive to use video consultations when a less costly telephone call might suffice. This issue highlights the dilemma of how to define the scope of telemedicine services and structure payment so that the value of telemedicine capability may be obtained without unduly escalating Medicare costs. Given such uncertainties, HCFA's cautious approach has been understandable.

Possible Payment Approaches for Teleconsultations

Concerns about the uncertain cost implications of video consultations have led to suggestions that Medicare allow coverage on a restricted basis. One approach that is suggested frequently would be to permit coverage only in rural locations or, even more restrictive, only in underserved rural areas. Coverage also could be limited to specific applications that have been accepted as effective and are not likely to be overused, such as emergency or triage teleconsultations. Another approach would be to contract with a limited number of telemedicine networks, using competitive bidding among networks to identify the winning networks and establish payments.

The first step in establishing a payment method would be to determine the types of teleconsultations for which it is acceptable to pay multiple providers using existing codes and payments, and those for which it is not. As described above, a followup teleconsultation with a patient in which both the primary care physician and specialist participate (after an initial primary care physician visit) is an example of the latter category. Two basic approaches could be used to establish provider payments for encounters that involve extra physician visits. First, individual providers could be paid separately under the Medicare Fee Schedule, using separate codes and relative value units. Payment design issues to be resolved with this approach include:

- whether telemedicine services should be coded using separate procedure codes or modifiers to existing codes,
- how to set separate payments for professional and technical services for physicians and facilities,
- whether to pay reduced rates to a primary care physician who serves as a second physician in a consultation with a specialist,
- how to determine the relative value units for each physician, and
- how to pay nonphysician practitioners at remote sites.

An alternative approach would be to establish a form of global fee for each type of teleconsultation. For the followup teleconsultation example, one fee would be paid for the encounter. The providers would negotiate among themselves their shares of that payment. The global fee might be designed to identify separately a component for applicable capital costs of telemedicine equipment, analogous to the capital portion of Medicare prospective payments for hospital inpatient services. The payment could be made to the provider that is managing the patient's care, for example, the primary care physician or the rural hospital. Different payment structures might be used for inpatient and outpatient teleconsultations.

HCFA recently has awarded several grants for projects that will test payment alternatives for video consultations to ascertain their effects on provider incentives and Medicare costs. One of these studies is testing how paying all physicians participating in teleconsultations would affect Medicare costs of care in the West Virginia MDTV program, including how it would change overall service use patterns and costs of care.

Special Applications of Telemedicine

Several telemedicine applications are being developed for identifiable population groups. Among these are:

- services to institutionalized populations in homes for the disabled, nursing homes, or jails and penitentiaries;
- monitoring and consultation for patients in their homes;
- continuous monitoring of ambulatory patients; and
- triage and emergency health care response during disasters.

Because these services are organized differently than the standard outpatient or inpatient visits, payment methods might be structured specifically for each application. In doing so, a balance should be maintained between enhancing access to needed care for these populations and protecting Medicare from excess demand or fraudulent billing, to which some applications may be vulnerable.

Telemedicine in Underserved Areas

It might be desirable to establish financial support mechanisms for telemedicine to help improve access to care in underserved locations, where costs may be unavoidably higher than average. Although capital and operating costs for telemedicine networks are declining, operating costs remain high in some areas because of telecommunications costs. As discussed above, a combination of high costs and low use rates may prevent some rural networks from being self-sustaining, even with insurance coverage.

Several approaches have been suggested to improve access to care by supporting telemedicine in underserved areas. First, the elimination of telecommunications regulatory barriers, such as conflicting fee structures for use of transmission lines, would improve access to telecommunications

technology and reduce transmission costs. Additionally, federal tax incentives and low interest loans for telemedicine systems could reduce financial barriers. Both approaches have been recommended in a recent report by the Health Information and Applications Working Group of the Information Infrastructure Task Force (Information Infrastructure Task Force 1995).

Another option would be to use a payment method that combines payment for services with grant funding. The payment rate would be established to include payment for a reasonable per unit overhead expense based on a system that was operating at full capacity. Grant support would provide funding for excess capital costs that would not be covered by payment due to low service volumes. The payment also might include a bonus payment mechanism to encourage telemedicine systems to serve the most severely underserved areas.

INFORMATION NEEDED TO DETERMINE COVERAGE AND PAYMENT POLICY

Payers, including Medicare, will be relying on evaluation research to inform their decisions regarding coverage and payment methods for telemedicine technologies. The success of an evaluation will depend on having clear outcome goals to evaluate, sound study design and execution, and reliable operating data for the technology. It often is difficult, however, to operationalize measures of effectiveness and value in evaluation studies.⁴

Evaluators of the performance and costs of telemedicine services face at least four challenges that make it difficult to obtain useful results. First, each telemedicine service involves different clinical processes, outcomes, and costs. Because it would be extremely expensive to evaluate all these services, payers will have to set priorities for what services will be studied. Second, telemedicine services are rapidly evolving technologies. Services selected for evaluation should be among the more fully developed applications, so that studies can document the current performance of the relevant technologies as well as possible, while taking into consideration possible future changes in capability and costs. Third, the comparison group for telemedicine applications may be unclear. For example, a teleconsultation could be evaluated on its own merits, or it could be compared to a consultation performed either face to face or by telephone. Fourth, the small service volumes of existing telemedicine systems translate into small sample sizes and low statistical power for evaluations. The small numbers may distort estimates of unit costs, and the statistical limitation may prevent studies from drawing conclusions about medical outcomes or other findings.

The usefulness of an evaluation also will depend on how accurately the system being studied represents the operating capability and costs that a telemedicine system would have if a particular payment policy were fully implemented. This may be the most challenging problem, since the market structures and incentives for virtually all the existing telemedicine systems diverge substantially from

⁴ The discussion in this section draws upon information provided by Rashid Bashshur (University of Michigan) and Douglas Perednia (Oregon Health Sciences University), who are principal investigators for two of the HCFA telemedicine evaluations. In particular, they offered helpful insights with respect to research design issues, information requirements, and methodological limitations.

what they would be if providers were being paid for services rendered and other market barriers were removed. As discussed above, incentives of telemedicine network providers under insurance payment differ from those under grant funding. Also, when insurance pays for their services, physicians will be more willing to participate than they have been thus far.

Getting Good Information for Decision Making

Before evaluations can be performed, a set of teleconsultation services needs to be defined based on the type of health condition being treated, clinical processes used, and telemedicine functions required. Separate teleconsultations might be defined, for example, for a chronic care consultation for renal disease or a cardiac condition. Services with the highest priorities for evaluation then should be identified. The selection process should consider the potential impact of payment for the service on access to care, as well as anticipated service volumes, costs, or clinical outcomes.

To evaluate payment systems for a type of teleconsultation, the first step would be to define a payment policy's goals. Then one or more payment methods would be developed and implemented to pay for services delivered by telemedicine systems. Evaluations would assess how well a payment method achieves the payment policy's goals. One goal, for instance, could be to reduce Medicare costs; another could be to gain added value, such as improved access or outcomes, at acceptable cost.⁵ Outcomes measured should be responsive to the payment policy goals and should encompass impacts on patients, providers, and Medicare. For example, for a goal to reduce Medicare costs, an outcome measure would be total Medicare expenditures per beneficiary.

In establishing the teleconsultation payment rates to be evaluated, reliable information about telemedicine systems' overhead and the direct costs of providing the services should be obtained and compared to the existing payments for face-to-face services. Given that telemedicine systems are underused, the overhead cost assigned to a unit of service could be overestimated, thereby inflating the payments. Capacity utilization rates that assume a system is being fully used would generate the most reasonable payments, but they also could be difficult to estimate.

After the new payment method being tested is introduced, telemedicine systems participating in a study will respond to the new payment by changing the way they operate. Sufficient time should be allowed for them to achieve a new operating equilibrium before comparative analyses of costs and outcomes are performed. Data should be collected during the transition period to learn as much as possible about responses to payment changes.

Information should be gathered for episodes of care, identifying all Medicare costs that might be changed by the availability of payment for telemedicine services, in addition to the payments for the telemedicine consultations. The net impact on total Medicare costs will be affected by changes in service patterns, with higher costs for some services and lower costs for others. Among these would

⁵ Economists express a goal of added value as maximizing social surplus, which is the net value of the amount purchasers are willing to pay for a product in excess of the costs of supplying it.

be costs of rural and urban hospital stays, patient transfers, emergency transport, emergency room use, and diagnostic tests performed.

Current Evaluations Being Performed

HCFA is funding two studies of telemedicine to help inform its coverage and payment decisions. One will evaluate the telemedicine program in Georgia; the other will assess programs at East Carolina University and in Iowa. The evaluations will emphasize feasibility, service delivery, and costs, rather than clinical effectiveness. Although they use somewhat different approaches, both studies are responsive to the issues discussed here.

All 12 of the telemedicine projects funded by the Office of Rural Health Policy have evaluation components, which will provide case study information on telemedicine performance. The evaluations will focus on improvements in access to care, acceptance of specific applications by providers and patients, and the administrative and financial feasibility of comprehensive telemedicine systems. The extent to which these evaluations will be useful for Medicare payment policy is uncertain. Because the projects can use grant funding to pay physicians for teleconsultations, the evaluations may yield some information on how payment affects utilization. The projects are performing separate evaluations, however, and all but one are new and changing. Thus, these projects may not be accurate reflections of fully operational systems under an established telemedicine payment policy, and their sample sizes may be small.

LEGAL AND PROFESSIONAL ISSUES

Several issues unrelated to payment were identified earlier as additional reasons for the low service activity of existing telemedicine systems. These legal and professional issues deserve attention to help remove barriers to the appropriate development of telemedicine services as part of the health care system (Grigsby et al. 1994b; Office of Rural Health Policy 1994b; Information Infrastructure Task Force 1995).

Standards for the Practice of Telemedicine

Adoption of practice standards would provide tools to guide the use of telemedicine programs and individual applications. If precedent is followed, this role would be assumed primarily by professional societies, accrediting organizations, or other private organizations. To date, formal standards have been established only for teleradiology, although some work for teledermatology is being sponsored by the Dermatology Foundation (American College of Radiology 1994; Amonette 1995). One reason for the absence of other standards is lack of supporting data required to develop them. Development of information on the effectiveness of telemedicine technologies could be an appropriate public sector role. As information becomes available, professional organizations and accrediting bodies may be able to establish telemedicine standards and practice guidelines for their constituencies. Such standards may help protect patients from inappropriate care and providers from medical liability exposure, and they can be referenced in Medicare certification and coverage policies.

State-Specific Medical Licensure

Under existing state medical licensure laws, which do not allow out-of-state physicians to practice in a state, specialty physicians may have to obtain multiple state licenses to provide telemedicine services. Kansas recently passed legislation that explicitly prohibits out-of-state consultation unless the physician also is licensed to practice in Kansas. A priority identified by the American Telemedicine Association (1994) is cross-state licensure for telemedicine interactions during disasters. The Information Infrastructure Task Force report (1995) recommends federal licensure for telemedicine services. Although federal law based on telemedicine as interstate commerce would have the potential to remove this barrier, state resistance could be substantial. The Federation of State Medical Boards is in an early stage of developing a model licensure process for telemedicine practice for approval by its membership, to ultimately enhance interstate practice of telemedicine (Harwood 1995).

Professional Liability for Consultant Physicians

Compared with providing traditional services, the provision of telemedicine services may increase liability exposure for physicians, not only because of the relative absence of practice standards but also because the technology changes relationships among physicians and patients. It may be difficult to assign liability among multiple providers in a telemedicine encounter. The presence of telemedicine capability also may change the local practice standards used to assess medical liability in legal proceedings. The changed nature of the physician-patient relationship may feel unfamiliar to patients, and this unfamiliarity may extend to perceptions by patients and juries that teleconsultations are inadequate because they are not hands-on. Further, technical aspects of image compression and transmission could lead to misconceptions that consulting specialists are working with incomplete data. Liability exposure might be reduced by such methods as establishment of minimum standards by professional organizations or videotape documentation of teleconsultations as part of medical records (American Telemedicine Association 1994; Office of Rural Health Policy 1994c).

Confidentiality of Patients' Telemedicine Records

The benefits of data integration capabilities offered by telemedicine systems are accompanied by risks of violating patients' rights to privacy. One aspect of this issue is informed consent from patients before teleconsultations in which they are participants, including their written directions with respect to recording of sessions and storage of tapes as part of their medical records. Another is protection of electronic medical records by telemedicine providers, including security for the computer systems and other media on which they are stored. Finally, confidentiality of medical information should be protected during transmission, using such techniques as data scrambling or closed transmission systems (Preston 1993; American Telemedicine Association 1994). Liability law motivates providers to ensure protection of confidential information, and the availability of model forms or procedures and technical guidance on telecommunication and information systems could help them to do so.

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MEDICAID DEMONSTRATIONS

Medicaid—a federal-state program enacted along with Medicare in 1965—is the major program for furnishing preventive, acute, and long-term care to low-income persons. Today, Medicaid covers about 36 million people, including about 4 million elderly who are dually eligible for Medicare and Medicaid. Though the federal government requires that Medicaid programs cover specific populations and provide certain benefits, the states may cover additional persons and include optional services.

Waivers granted to states under Section 1115 of the Social Security Act permit them to develop innovative demonstration, experimental, or pilot projects that are consistent with the broad goals of the Medicaid program.¹ Since the rationale for these demonstrations is research to inform policymaking, the projects must have scientific evaluations. Earlier demonstrations were unique experiments conducted on a limited scale, lasting for three-to-five year periods (unless renewed by legislation).

More recent demonstrations are being used for additional purposes. States are increasingly turning to this waiver authority to expand Medicaid eligibility for acute care services to low-income, uninsured persons; enroll Medicaid and newly covered beneficiaries in prepaid managed care; contain Medicaid costs; and gain flexibility in meeting federal Medicaid program requirements.

Medicaid demonstrations have the potential to make health insurance coverage available to millions of Americans who now lack it. If all states operated under Medicaid demonstration authority that expanded coverage to everyone at or below 100 percent of the federal poverty level, the number of nonelderly Medicaid beneficiaries would increase from 32 million to between 41 million and 46 million, depending on how many of those eligible would purchase insurance. Additionally, if coverage were extended to everyone at or below 200 percent of the federal poverty level, the number of nonelderly Medicaid beneficiaries would increase to anywhere from 50 million to 77 million (Holahan et al. 1994). Under this scenario, Medicaid coverage would be available to many Americans who lack health insurance today.

Although the recently approved Medicaid demonstrations provide states with a way to expand insurance coverage, their implementation may fail to fulfill the anticipated goals or, indeed, may leave current Medicaid beneficiaries worse off.² Furthermore, the heightened interest in demonstrations

¹ For discussion of the legal aspects of waivers, see Bennett and Sullivan (1993), Perkins and Melden (1994) and HCFA (1995).

² For example, beneficiary satisfaction is lower with the Tennessee demonstration than with the previous Medicaid program. Slightly fewer than two-thirds of beneficiaries were satisfied with the demonstration, while more than 80 percent were satisfied with Medicaid (Fox and Lyons 1994).

raises questions about whether the demonstration authority is being used to circumvent requirements for the Medicaid program.

The Commission's recommended approach to Medicaid demonstrations protects access and ensures quality, strengthens the demonstration authority, and provides for greater state flexibility in administering the program, should the Congress decide to continue Medicaid's current financial and administrative structure. The adoption of this policy recommendation will depend on decisions concerning the future structure of the Medicaid program and welfare reform. Several options, including block grants to states for medical care for the poor and federalizing all or part of the Medicaid program, are being seriously considered.

RECOMMENDATION

If the Congress chooses to continue the current administrative and financing structure of the Medicaid program, the Commission recommends:

- **a modification of the existing demonstration authority (Section 1115) to include more explicit research requirements, and**
- **adoption of a new waiver authority that allows states to expand coverage to the uninsured.**

These two steps would ensure that demonstration research would be more useful for decisionmaking, protect access to quality care for Medicaid beneficiaries, allow states to expand the use of managed care for these beneficiaries, and provide states with greater flexibility than exists under current Medicaid law.

This chapter begins by examining the authority for various types of Medicaid waivers, use of the demonstration waiver authority by the current and previous administrations, and recent modifications in the demonstration application process. It then describes the goals, financing, and delivery systems of the recently approved statewide demonstrations. This is followed by a discussion of the Commission's concerns about the implementation of these demonstrations and the limitations of their scientific usefulness. Finally, the Commission's proposal for a new waiver authority and modification of the current demonstration authority are presented more fully.

MEDICAID WAIVER AUTHORITY

The Medicaid law allows for flexibility in program design through waivers of certain Medicaid requirements. There are several different types of Medicaid waivers, each of which differs in the amount of flexibility it allows and in the provisions of the Medicaid law to which it applies. The three principal types of waivers are program waivers under Section 1915 of the Social Security Act, congressionally mandated demonstrations, and demonstration waivers granted under Section 1115 of the Social Security Act. This section describes each of these in detail.

Section 1915 Program Waivers

Section 1915 of the Social Security Act allows the Health Care Financing Administration (HCFA) to waive provisions of the Medicaid law so that states can employ mandatory enrollment in managed care, and develop home-based and community-based care programs as well as programs for boarder babies. Applications for these waivers are highly standardized. This is the most commonly used waiver authority.

In its previous consideration of quality assurance for Medicaid, the Commission discussed 1915(b) waivers, commonly called freedom of choice waivers (PPRC 1993). With these, HCFA can waive basic Medicaid requirements (freedom of choice, uniform statewide operation, and comparability of benefits) to allow states to implement alternative health delivery systems or provider reimbursement arrangements. To receive approval, a state must demonstrate that the program will be cost effective and that access to quality care will not be impaired. These waivers are granted for two years and can be renewed.

As of July 1994, 40 states had 1915(b) waivers for managed-care programs. Michigan, for example, has waivers that allow it to limit, in selected counties, Medicaid beneficiaries' choice of providers to primary care case management and health maintenance organizations (HMOs).

Home-based and community-based care waivers under Sections 1915(c) and (d) allow states to provide medical and supportive services for elderly, mentally retarded, and other disabled beneficiaries who are at risk of needing institutional care.³ These waivers are for three years, but may be extended for five more. HCFA can waive the requirement that state policies apply across an entire state to allow for programs in limited geographic areas; it can also waive the comparability standards so that the state can limit benefits to certain categories of individuals. Typical services provided under these waivers include case management, home health aides, transportation, and personal care services. In June 1994, 49 states had home-based and community-based waivers under Section 1915(c). Oregon had the only 1915(d) program.

Section 1915(e) allows for waivers to develop programs for boarder babies—infants with acquired immunodeficiency syndrome virus or drug dependency who remain in the hospital because they cannot be placed in adoptive or foster care homes. A broad range of services is allowed under this authority, including physician services, nursing care, prescription drugs, and transportation. Although no state has been granted a waiver under this section, waivers to states for boarder babies programs have been granted under the authority in 1915(c) of the Social Security Act.

Congressionally Mandated Demonstration Projects

The Congress has legislated specific demonstration projects. Some have been extensions of those previously granted by HCFA under Section 1115 authority; others have been for new projects. From

³ The 1915(d) waivers are granted for programs for the elderly only.

1984 to 1990, there were 23 congressionally mandated demonstrations. For example, Arizona's nontraditional Medicaid program, the Arizona Health Care Cost Containment System (AHCCCS), which was originally approved under Section 1115 authority, received a one-year extension granted by the Omnibus Budget Reconciliation Act of 1987 (OBRA87).

Section 1115 Demonstration Waivers

Section 1115(a) of the Social Security Act allows the Secretary of Health and Human Services (HHS) to approve demonstration projects that will help promote the goals of the Medicaid program. Although Section 1115 extends to other programs under the Act, such as Aid to Families with Dependent Children (AFDC), this chapter focuses on Medicaid only.⁴ States are using Section 1115 authority to expand eligibility for Medicaid to include the uninsured and to enroll current and newly covered beneficiaries in managed care.

Background. The intent of this demonstration authority is to test unique and innovative approaches to the delivery and financing of health care (HHS 1984).⁵ In contrast to Section 1915 waivers, states are not allowed merely to copy programs in other states to obtain approval for demonstration authority. The uniqueness of each of these demonstrations is illustrated by examining one approved project.⁶ For example, with Medicaid and Medicare waivers, the On Lok Senior Health Services program in San Francisco provided the frail elderly with comprehensive, integrated, acute and long-term care under a capitated arrangement. On Lok was a demonstration project from 1983 to 1986, but it was legislated as a permanent project in OBRA86.⁷

Under a demonstration grant, the Secretary can waive many provisions of the Medicaid law.⁸ All other sections of the Medicaid law, except those explicitly waived, apply to demonstrations, however. For example, HCFA waived freedom of choice, the right of beneficiaries to disenroll from a managed-care plan at any time, and the managed-care enrollment composition rule for AHCCCS.⁹

Demonstrations require research and evaluation components, but requirements seem to differ depending on the type of applicant. When researchers apply for waiver authority, they are cautioned by HCFA to

⁴ Before the passage of Medicaid, this authority existed for welfare programs.

⁵ When the Congress created Section 1915 waivers, it indicated that a Section 1115 waiver should be used to "test a unique approach to the delivery and financing of services to Medicaid beneficiaries" (Committee on the Budget 1981).

⁶ Other examples of unique projects include the Medicaid Competition Demonstrations, which tested innovative delivery systems, including capitation and primary care case management before they were commonly used; and AHCCCS, which initiated a nontraditional Medicaid program.

⁷ In OBRA86 the Congress also allowed for up to 10 replications of On Lok under what is known as the Program of All-Inclusive Care for the Elderly (PACE).

⁸ The Secretary can waive requirements in or incorporated under Section 1902 of the Social Security Act.

⁹ The enrollment composition rule requires that at least 25 percent of enrollment of total membership be non-Medicaid and non-Medicare beneficiaries.

“ensure that the experimental design and evaluation protocol are of the highest quality” (HCFA 1994a). Proposals must contain significant consideration of the hypotheses, study design, data collection, database management, analysis plan, analytic methods, and limitations of the evaluation (HCFA n.d.). States, however, are not required to meet these conditions in their applications for demonstrations.

The Secretary has broad discretion in approving these demonstrations and has selectively approved such proposals. For example, while the Oregon demonstration proposal, which included expanded eligibility and priority setting for health care benefits, was rejected because of concerns about its implications for the Americans with Disabilities Act, a modified proposal was later approved.

These demonstrations last for a limited time, usually three to five years. These generally have not been renewed by the HHS Secretary. The Congress, however, has extended them with legislation. From 1984 to 1991, the Congress legislated 13 extensions of demonstrations (CRS 1993).

Previous Waivers. Prior to the Clinton Administration, Medicaid demonstrations were generally concerned with narrower policy issues and were not statewide. For example, of the 35 active Medicaid demonstrations in 1991, only AHCCCS could be characterized as having a broad scope. Narrower projects included the On Lok acute and long-term care project, 3 Social HMO projects, 7 all-inclusive care programs for the elderly, 6 nursing home case-mix payment projects, 3 managed-care demonstrations, 11 projects to improve access for specified populations (such as pregnant substance abusers), and 3 welfare projects with Medicaid components (CRS 1993).

The broadest demonstration was the Arizona Health Care Costs Containment System, which began in 1982. Before it was approved, Arizona did not have a Medicaid program. AHCCCS is a demonstration project to provide health care to those who would have qualified for Medicaid. In 1982 there were four major differences between traditional Medicaid programs and AHCCCS, however. First, the state received per capita payments from the federal government for those eligible due to AFDC or Supplemental Security Income status. By contrast, traditional Medicaid programs receive open-ended federal matching funds. Second, some poor people who would be classified as medically needy in other states were covered but funded by the state alone. This differs from a traditional Medicaid program where a state receives federal matching funds for covering medically needy persons. Third, unlike traditional Medicaid programs at that time, there was no fee-for-service option in AHCCCS; beneficiaries had to choose a managed-care plan. Fourth, in its initial years, unlike traditional Medicaid programs, AHCCCS did not cover long-term care, home health, and family planning services, and services for the chronically mentally ill.

The Administration’s Approach to the Waiver Process. The Clinton Administration clarified its approach to the demonstration review process in response to a request by the National Governors’ Association (NGA) that the waiver process be expedited (NGA 1993). Under the Clinton Administration, the waiver procedures were initially outlined in a letter to the National Governors’ Association; they later appeared with one major modification as an announcement in the *Federal Register* (Monahan n.d.; HCFA 1994b). Neither of these documents is legally binding; they merely provide information.

The most important change initiated by the Administration concerns the requirement that each demonstration be unique. The Clinton Administration is willing to approve the same or closely related demonstrations in several states (HCFA 1994b). Previously, the Department of Health and Human Services indicated that demonstrations had to be “innovative and unique” (HHS 1984).¹⁰

The notice published in the *Federal Register* appears to indicate a relaxation of the scientific rigor required for evaluation of these demonstrations. For example, HHS prefers within-site randomization for welfare demonstrations, but there is no such preference for Medicaid demonstrations. HCFA’s Administrator has commented that modification of the research requirements was the most important change in the Department’s approach to demonstrations (*State Health Notes* 1993).

While the Administration is committed to the principle that demonstrations be time-limited, it made two modifications in past practice. First, if a demonstration is successful and the state is interested in continuing it, the Administration might be willing to pursue legislation to allow the project to continue. Second, the Administration may consider extensions of successful demonstrations until legislative authority is granted (HCFA 1994b).

The review process has been expedited by having the appropriate federal offices conduct their reviews concurrently. Since there are reviews by numerous offices, sequential reviews by them took considerable time.¹¹ While the first review of the Oregon proposal took 21 months, for instance, reviews are now completed in less time. HCFA has indicated that it hopes to review completed applications in 120 days.

HCFA is also providing technical assistance to help states develop demonstrations. HCFA has a contract with the Research Triangle Institute (RTI), with a subcontract awarded to the National Academy for State Health Policy, to provide this assistance. RTI is preparing two technical assistance papers on measures of access and encounter data. As part of this contract, RTI organized a national conference for states to share information about the demonstration waiver application process and implementation of demonstrations.

The one new aspect of the Administration’s process that did not appear in its letter to the NGA is the requirement for public involvement (HCFA 1994b). States are expected to have a procedure for input from those who are likely to be affected by the demonstration. The mechanism can take a variety of forms, such as public hearings. In addition, HCFA will publish notices of pending applications and receive public comment on them.

¹⁰ In the past, several sites for a demonstration have been approved, but they were approved as part of one waiver application with an integral research design.

¹¹ Reviews are conducted by HCFA’s Regional Office, the Office of Research and Demonstrations, the Medicaid Bureau, the Office of Managed Care, the Office of the Assistant Secretary for Planning and Evaluation, the Office of the Assistant Secretary for Management and Budget, HHS General Counsel, and the Office of Management and Budget.

The Administration is committed to budget neutrality in the demonstrations. Although the statute does not require budget neutrality, the Administration states that it will approve only those demonstrations that are budget neutral over the life of the demonstration (HCFA 1994b).

The Administration has used two general methodologies to ensure budget neutrality. First, expenditures for some demonstrations, including those for Hawaii, Kentucky, and Rhode Island, are limited to per capita costs for “current” beneficiaries inflated over the life of the demonstration.¹² Current beneficiaries include those eligible under state law in the base year plus anyone who might have been eligible for Medicaid had the state extended coverage to additional pregnant women and children by adopting a more generous methodology for evaluating income and assets.¹³ States that adopt this methodology are responsible for any growth in per capita costs beyond inflation and for the cost of new beneficiaries.¹⁴

The second basic methodology, used by Tennessee and Florida, is a cap on total expenditures. Baseline expenditures, including disproportionate share hospital (DSH) payments, are inflated over the life of the project. States are responsible for any growth in total expenditures beyond those estimated for the demonstrations.

Although there are two basic methodologies for determining budget neutrality, specific elements of those calculations differ across demonstrations. Florida, for example, is allowed annual spending growth rates of 14 percent to 17 percent, while Tennessee’s may range from 5 percent to 9 percent. Growth rates for some other states depend on increases in the consumer price index plus a fixed percentage.

CHARACTERISTICS OF RECENT DEMONSTRATION WAIVERS

The Health Care Financing Administration has approved demonstrations for Florida, Hawaii, Kentucky, Ohio, Oregon, Rhode Island, and Tennessee. HCFA also granted an extension to the Arizona Health Care Cost Containment System. HCFA has approved, in principle, an application from South Carolina, but will not authorize the project until the state meets specified conditions. Applications from nine other states are pending.¹⁵ Other states have indicated a strong interest in developing demonstration proposals.

¹² Per capita costs include Medicaid expenditures for disproportionate share hospitals.

¹³ The authority to allow for more generous calculation of income and assets is in Section 1902(r)(2) of the Social Security Act.

¹⁴ This methodology is used for Oregon, but with some modifications. Oregon does not include disproportionate share hospital payments or Section 1902(r)2 monies. In addition, Oregon is only at partial risk for growth in new eligibles.

¹⁵ Delaware, Illinois, Louisiana, Massachusetts, Minnesota, Missouri, New Hampshire, Oklahoma, and Vermont have pending applications.

Demonstrations approved by the Clinton Administration share several major characteristics.¹⁶ First, they expand Medicaid coverage to previously uninsured populations and use mandatory managed-care arrangements for health care delivery. They also focus on preventive and acute care coverage, usually for children and adults (except for the elderly and disabled). Further, they exclude nursing home care and institutional care for the mentally retarded.

Nevertheless, the state context varies for these demonstrations, as does the program design. Some of the states have extensive market penetration by commercial managed-care organizations. For example, HMO penetration is high in Oregon, low in Kentucky and Tennessee, and extremely low in South Carolina (InterStudy 1994). Some of these states have considerable experience with Medicaid managed care; others do not. Oregon, for instance, has successfully implemented Medicaid managed care, while Tennessee's program was unsuccessful (Shikles 1991).

The change in the number of Medicaid eligibles varies across states, with some dramatically expanding coverage, while others are making only modest changes. Tennessee's demonstration covers all current Medicaid eligibles (about 750,000 people) as well as all Tennessee's uninsured population (about 500,000 people) (Rosenbaum and Darnell 1994).¹⁷ In comparison, Rhode Island's demonstration is more modest. It includes all AFDC families, and pregnant women and infants below a specified income level (about 65,000 persons). The addition of pregnant women and infants with incomes up to 250 percent of the federal poverty level increases the total by about 7,700 persons (Rajan et al. 1994).

Although all the demonstrations use managed-care delivery systems and, except Kentucky, permit all-Medicaid HMOs, their delivery systems differ. Oregon employs fully capitated plans, physician-care organizations with capitation for nonhospital services, and primary care case management. By contrast, Hawaii uses only fully capitated plans and Kentucky, only primary care case management.

The benefit packages also vary by state. Kentucky includes those services previously covered by Medicaid. Oregon's benefit package is determined by affordability given the condition of its budget, with benefits rank-ordered in a priority list. Rhode Island's benefit package is expanded to include family planning services for postpartum beneficiaries for two years.

The financing for these demonstrations comes from five sources, with the mix varying by state. All states use federal matching funds and state Medicaid funds as the basic funding mechanism. Some states increased their baseline (and therefore their federal matching dollars) by including beneficiaries who were not previously covered, but who could have been covered under federal law. Most of the programs require premiums, copayments or deductibles for those beneficiaries whose incomes are

¹⁶ For a summary presentation of the elements of approved demonstrations and pending applications, see Rosenbaum and Darnell (1994).

¹⁷ New eligibles are capped at 1.4 million.

above a specified level. Most states use disproportionate share hospital payments to fund insurance coverage. Finally, Oregon partially finances its demonstration by reducing covered benefits.

POLICY CONCERNS

Current use of these demonstrations raises two major policy issues. The first is whether these demonstrations will live up to their potential for expanded coverage and improvement in access or will, instead, lower access to quality care, especially for those Medicaid beneficiaries who were covered by the program before the demonstration.¹⁸ The second concern is whether these experiments will meet the intent of Section 1115 demonstrations to provide new, valuable information to use in making decisions about the Medicaid program, given the manner in which they have been implemented.

Ensuring Access

There are serious concerns about how certain aspects of the demonstrations will affect access to care. In judging the demonstration's value, these concerns must be weighed against the positive impact of expanding coverage to people who were formerly uninsured. States' previous experiences with the implementation of managed-care coverage under both program and demonstration authority provides important lessons.

Concerns About Access to Quality Care. Concerns about potential access problems stem from three characteristics of the demonstration programs. First, the cost-sharing requirements in some programs could discourage low-income beneficiaries from obtaining appropriate care. Second, low capitation rates paid to managed-care organizations may discourage established organizations from participating or from providing adequate access to quality services if they do participate. Third, under some of the demonstrations, traditional providers that have served Medicaid beneficiaries and the uninsured in the past may be unable to continue doing so.

Cost Sharing. The use of premiums, deductibles, and coinsurance is quite limited in traditional Medicaid programs. In general, state Medicaid programs cannot charge premiums for coverage. Services furnished to children, pregnancy-related services, emergency services, family planning services, services provided by HMOs to the categorically needy, and hospice services are exempt from any cost-sharing requirements. In other circumstances, states may employ only nominal cost sharing. No participating provider, however, can refuse to provide care if the beneficiary cannot pay the cost-sharing amount.

¹⁸ One possible indication of this comes from the Tennessee demonstration. While Tennessee is estimated to have reduced the number of uninsured persons by 47 percent, 51 percent of former Tennessee Medicaid recipients reported that their health care was worse under the demonstration than under Medicaid (Fox and Lyons 1994).

The Secretary can waive these cost-sharing provisions for a Section 1115 demonstration under very restrictive conditions. A cost-sharing demonstration must be unique and limited to two years. The research study must be methodologically sound with control groups of similar recipients in the area. The benefits of the demonstration to recipients must be expected to balance the risks, and, if enrollment is involuntary, provisions must be made to compensate beneficiaries for any preventable damage attributable to the demonstration.

The cost-sharing requirements in the recently approved demonstrations apply to the newly eligible and the medically needy (not to those who would have been previously covered because they were categorically needy).¹⁹ For example, Tennessee imposes premiums, deductibles, and copayments for persons with incomes above the poverty level. Its deductible for those between the federal poverty level and twice that level is \$250 per individual and \$500 per family, higher than that established by Blue Cross Blue Shield for federal employees.

Even for those whose incomes exceed the federal poverty level, these cost-sharing requirements may impede access to care. The RAND Health Insurance Experiment suggested that copayments affect some health outcomes for lower-income groups. Although free care did not improve outcomes for most participants, it did improve outcomes of poor persons with certain conditions (Brook et al. 1983; Keeler et al. 1987; Newhouse et al. 1993). Additionally, in response to cost sharing, low-income groups reduced both appropriate and inappropriate care (Lohr et al. 1986; Newhouse et al. 1993).

The barrier to care that is created by cost sharing for those with low incomes is apparent in a survey commissioned by the Tennessee Department of Finance and Administration. Nearly 80 percent of the uninsured indicated that they could not afford the insurance established under Tennessee's demonstration. Further, the inability to afford coverage varies with income. More than 90 percent of the uninsured earning less than \$10,000 said that they could not afford the cost of the insurance, compared with more than 60 percent whose incomes were between \$30,000 and \$39,000 (Fox and Lyons 1994).

Rate Setting and Payment Levels. The Medicaid statute includes some requirements related to payment rates. Federal regulations stipulate that Medicaid fees be sufficient to ensure that Medicaid beneficiaries have access to care comparable to that of the general population. Under OBRA89 states must submit documentation to HCFA each April demonstrating that payment levels for pediatric and obstetric services are sufficient to ensure access. Under the Boren amendment in OBRA81, Medicaid payments to hospitals and long-term care facilities must be reasonable and adequate to meet the costs of an efficiently and economically operated facility.

Capitated payments to managed-care organizations must be computed on an actuarially sound basis and cannot exceed what would be paid for an equivalent group under fee-for-service Medicaid.²⁰ The second requirement has been waived in certain instances, such as the Oregon demonstration.

¹⁹ The demonstrations in Kentucky and Oregon do not include cost-sharing provisions.

²⁰ In the future, it will be difficult to estimate capitation rates because information about the cost and utilization of fee-for-service beneficiaries will not exist.

Low capitation rates may not attract established, reputable managed-care organizations to contract with Medicaid programs. Even Minnesota, which has high penetration of commercial HMOs, experienced trouble attracting and retaining commercial HMOs with capitation rates that were 90 percent of Medicaid fee-for-service expenditures for AFDC recipients and 95 percent for Supplemental Security Income recipients (GAO 1993b).

Status of Community Providers. The Social Security Act requires that Medicaid programs cover certain mandatory services, including services of physicians, rural health clinics, federally qualified health centers (FQHCs), and, if authorized under state practice acts, nurse midwives, certified pediatric nurse practitioners, and certified family nurse practitioners.²¹

The Medicaid demonstrations have major implications for traditional providers in underserved areas because these demonstrations require both traditional Medicaid and newly eligible beneficiaries to join either an HMO or a primary care case management plan to receive some or all covered services. Most demonstrations relax the federal requirement that beneficiaries be able to choose federally qualified health centers or rural health clinics for service, and modify the federal requirement for payment methodologies for services provided by FQHCs.

Providers caring for the underserved are constrained in their ability to accept risk contracts, even if HMOs will contract with them, because they generally have limited capital reserves and narrow operating margins. This restriction affects the FQHCs in particular, as the Public Health Service Act allows them to use only nonfederal revenues to build capital reserves. If the FQHCs show losses from prepaid contracting, they cannot use any Public Health Service grant money to subsidize the losses. Instead, they must trim additional services they provide that are not required by their FQHC status. Public hospitals may also have a problem accepting capitated contracts because some state and local laws prohibit putting public assets at risk.

When FQHCs contract with health plans, they sometimes find that capitated rates allowed do not cover the costs of providing care. The Congress mandated in OBRA89 and OBRA90 that Medicaid and Medicare, respectively, cover the full cost of care for those beneficiaries who receive services at FQHCs. Under these demonstrations, providers are paid according to negotiated contracts, however. Due primarily to pressure from FQHCs to preserve the payment mechanism established in OBRA89, some pending demonstration applications preserve cost-based reimbursement for Medicaid services provided by the centers.

To reimburse hospitals with large volumes of underserved and low-income patients, the Congress created the designation of disproportionate share hospital. Special reimbursement lump sums or higher payments are made to assist these predominantly inner-city and rural public hospitals, which generally have low or negative operating margins. Many demonstrations eliminate distinct payments for DSHs, although equivalent amounts of money are included in capitation payments (Rosenbaum and Darnell 1994).

²¹ FQHCs are community and migrant health centers that receive grants under Sections 329 and 330 of the Public Health Service Act or similar ambulatory care centers that do not receive grants but meet specified criteria.

The budgets of many providers that serve the poor rely on a combination of local, state, and Public Health Service funds; foundation support; Medicaid and Medicare payments (including those for DSHs); and some private resources. If any of these sources is eroded by a demonstration, providers may find themselves in serious financial straits and unable to continue to furnish care.

Since community health centers have been important sources of care for those with lower incomes, policies like transitional financial support, which facilitate converting them to managed-care organizations or participating in managed-care networks, should be considered by the federal government. As both the private and public sectors move away from cost-based reimbursement (because it contains no incentive to control expenditures), community health centers will need to develop the infrastructure to participate in capitated arrangements. While this transition will be difficult, a few community health centers have succeeded. Nationwide, seven individual FQHCs and seven FQHC networks have developed their own HMOs (Abrams 1994).

Lessons from Previous Programs. Implementation will be the key factor in the success or failure of these demonstrations. Approved demonstrations may result in programs that fail unless the state and federal governments provide the resources needed to implement them and vigorously monitor them. This will involve greater administrative commitment of the states than in the traditional Medicaid program, because of the need to design new systems to administer and monitor financing and delivering care. For example, states that require beneficiaries to pay premiums for insurance coverage will have to establish administrative mechanisms to collect them.

Lessons concerning the implementation of Medicaid managed-care programs can be drawn from past experience. The most important one is that these efforts require time and adequate planning to be implemented. Phasing in the program by geographic area may also help ensure its success. Arizona's experience with the AHCCCS illustrates this. By attempting to put it in place within a 10-month period, there were few financial and encounter data monitoring systems, enrollment was delayed, marketing abuses occurred, and contracts were awarded to plans with too few specialists (GAO 1987; McCall et al. 1989b). Additionally, these implementation problems made it difficult to conduct research on the AHCCCS in its first three years (GAO 1987). A recent study of Illinois' Healthy Moms, Healthy Kids program (approved under Section 1915) concluded that it did not succeed as planned because of "an unrealistic implementation timeline" (Center for Health Administration Studies 1995).

Minnesota, on the other hand, had three years for planning between approval of the Minnesota Prepaid Demonstration Project and beneficiary enrollment (GAO 1993b). Under Section 1915 waiver authority, Oregon gradually expanded managed-care coverage from 20,000 beneficiaries in 4 counties to 73,000 in 11 counties over seven years (GAO 1992). Oregon's demonstration, which engendered tremendous controversy, appears to have benefited from a five-year planning effort and extensive public scrutiny.

Programs that entail major expansions will require even more planning than the modest ones. Access may suffer if states attempt to shift their Medicaid programs too rapidly to managed care, while

simultaneously extending enrollment to new groups of beneficiaries. There may be too few providers to serve adequately those eligible due to the expansion of Medicaid coverage to previously uninsured populations. For example, HCFA has delayed approval of Illinois' demonstration because of these concerns (Pearsen 1994).

A second lesson is that states need to develop appropriate systems to monitor access, quality, financial stability, and marketing. During the 1970s when California attempted to place Medicaid recipients in managed care, there was deceitful marketing, favorable selection, disenrollment upon sickness, financial irregularities, poor quality or nonexistent care, conflict of interest by former state employees, and lack of responsiveness to complaints. The lack of adequate oversight by a state is also illustrated by the Illinois Medicaid program's failure to ensure that Chicago area managed-care organizations had satisfactory quality assurance programs (GAO 1990). More recently, Florida's lack of commitment to regulate managed-care organizations with Medicaid contracts resulted in awarding contracts to owners with inappropriate backgrounds, health plans with inadequate financing and questionable financial practices, enrollment abuses, poor quality care, and few incentives to improve care (Schulte and Bergal 1994).

A third lesson is that the degree of financial risk experienced by providers should be limited. Previously, the Commission expressed concern about incentive arrangements that placed excessive risk on individual physicians or small groups of physicians (PPRC 1989).²² The General Accounting Office (GAO) found that, in the Chicago area Medicaid program, too much financial risk was transferred to physicians, increasing the probability of inappropriate service reductions (GAO 1990).²³ By contrast, the GAO found that Oregon had adopted safeguards that limited risk to certain services and provided optional stop-loss protection (Shikles 1991).

Finally, it is important that Medicaid programs provide beneficiaries with information about managed care. For those beneficiaries who have experienced only fee-for-service medicine, it is essential to explain the new arrangements for receiving care, including such details as authorization of services by primary care physicians, appropriate use of emergency rooms, and the availability of preventive care (GAO 1993b; Rowland et al. 1995).

HCFA's Evaluations of the Demonstrations

HCFA has contracted for significant evaluations of these demonstrations. Although the successful proposals are thoughtful and creative, through no fault of the evaluators the research designs resemble evaluations of ongoing programs rather than of social experiments. States apply for the demonstrations, and the research is not an integral part of their proposals. HCFA awards the research contracts, but research efforts may begin after the demonstrations are under way.

²² For a discussion of incentive arrangements, see Chapters 10 and 16.

²³ In designing the Healthy Moms, Healthy Kids program, Illinois addressed concerns about financial risk (GAO 1993a).

In March 1994 HCFA published a request for proposals (RFP) for the evaluation of the Oregon demonstration. In September 1994, the agency awarded a \$3.2 million contract to Health Economics Research in collaboration with Research Triangle Institute and the Bowen Research Center at Indiana University for this five-year evaluation (Health Economics Research 1994). Considerably before the research contract was awarded, Oregon's demonstration began.²⁴

In April 1994 HCFA issued a second RFP for an evaluation of five demonstration projects, including those in Hawaii, Rhode Island, Tennessee, and two states to be named later. In September 1994, HCFA awarded a \$5.6 million contract to Mathematica Policy Research in collaboration with the Urban Institute and Systemetrics for this five-year evaluation (Mathematica Policy Research 1994). Hawaii, Rhode Island, and Tennessee implemented their programs before the research contract was awarded.²⁵

These studies are supposed to assess how the expansion of Medicaid eligibility affects people who were previously uninsured and how managed care affects Medicaid beneficiaries. Additionally, the Oregon evaluation is to examine the impact of the priority list of covered services, which may vary depending on the state budget. Pending adoption, this study of Oregon's demonstration will also assess the requirement that all employers provide insurance to permanent employees, and the establishment of high-risk insurance pools. Impacts on quality of care, access to care, satisfaction with care, utilization of services, and expenditures are to be studied. Changes in organization of management and delivery systems, such as data systems, contractual arrangements, eligibility and enrollment, and provider participation, are also to be evaluated.

Given that these programs have been designed to cover all eligible persons in the respective states, it is impossible to establish a true experimental design with randomization. The design involves pre-post comparisons with nonequivalent control groups. Control groups in both evaluations for the newly insured will be those who were qualified for benefits but remained uninsured, and, in the five-state evaluation, those whose incomes place them slightly above the eligibility threshold. The control groups for Medicaid eligibles will be pre-demonstration fee-for-service Medicaid beneficiaries in both evaluations and, also, in Oregon, those food stamp recipients who remain uninsured throughout the demonstration.

Evaluation of Research Questions. Two of the three questions posed by HCFA for these demonstrations have been the subject of much prior research. The first concerns the impact of health insurance on previously uninsured persons. Numerous studies have found that once this group becomes insured access to care improves (OTA 1992). For example, before Medicaid was enacted in 1965, many of the poor often went without care. By the late 1970s, however, Medicaid beneficiaries used physician services at the same rate as the general population (Davis and Schoen 1978). Despite

²⁴ Oregon's demonstration began on February 1, 1994.

²⁵ Tennessee began its program on January 1, 1994. Hawaii and Rhode Island began their programs on August 1, 1994.

previous research, these demonstrations may provide additional information on the effects of different benefit packages, copayments, and delivery systems across states.

The second question concerns the impact of managed care on Medicaid beneficiaries. Well over 100 articles have been published on this subject (for more complete reviews of the literature, see Rowland et al. 1995; Hurley et al. 1993; PPRC 1992). Studies on Medicaid managed care demonstrate that managed-care organizations provide care that is at least equivalent to fee-for-service Medicaid, slightly improve preventive care, reduce emergency room use (and thus presumably enhance continuity of care), and guarantee access (Freund et al. 1989; Temkin-Greener and Winchell 1991; McCall et al. 1989a; Goldfarb et al. 1991; Carey et al. 1991). Even though Medicaid managed care for the AFDC population has been studied extensively, it is possible that these demonstrations may provide further information on the delivery systems that are most successful with Medicaid populations and the Medicaid covered groups for which managed care works best.

Although there is little research on the impact of managed care on disabled populations covered by Medicaid, most of these demonstrations cannot provide that.²⁶ There is, for example, one study of the Arizona Long Term Care System indicating that care received by the elderly and disabled was of lower quality in a capitated system than in the fee-for-service comparison, but that study had methodological limitations (Balaban et al. 1994). A carefully designed demonstration incorporating disabled populations would add considerable knowledge to the understanding of policy alternatives, but it must have heightened safeguards for quality and access.

The Oregon evaluation poses a research question that has not received previous attention. The examination of the impact of prioritization of health services is truly unique. In the future, results from the Oregon demonstration will affect the development of benefit packages and cost containment policies.

Research Design. In an ideal experiment, participants are randomly assigned to treatment and control groups; information is collected on the status of those in both groups prior to, during, and after the experiment (Campbell and Stanley 1963). For example, the New Jersey Income Maintenance Experiment, which tested changes in labor force participation in response to a guaranteed income, assigned participants to different treatments (combinations of guaranteed income levels and tax rates) and control groups. Baseline labor force participation and related data were collected prior to and every three months during the experiment (Kershaw and Fair 1976). The RAND Health Insurance Experiment tested the effect of different cost structures (combinations of coinsurance rates and caps on out-of-pocket expenditures) on health care use, quality of care, patient satisfaction, and health status. The study assigned participants to 11 treatment and 3 control groups.²⁷ Data sources included

²⁶ For a discussion of the prospects of implementing Medicaid managed care for the disabled who have atypical and complex medical care needs, see Tanenbaum and Hurley (1994).

²⁷ Both these experiments modified simple random assignment to maximize the efficiency of the design, given cost constraints.

initial interviews, initial physical exams for some participants, self-administered questionnaires on medical history and health status, health report questionnaires, claims forms, abstracts of medical records, and exit physical exams for all participants (Newhouse et al. 1993). By contrast, the research design for these Medicaid demonstrations is a nonequivalent control group design without random assignment to treatment and control groups.²⁸

Normally study design precedes project implementation. HCFA advises that those applying for demonstrations “are strongly encouraged to coordinate with researchers or research firms in order to ensure that the experimental design and evaluation protocol are of the highest quality” (HCFA 1994a). None of the proposals for approved demonstrations included an experimental design and evaluation protocol. Indeed, the demonstrations in Oregon and Tennessee were started before HCFA published its RFPs. The research designs of the New Jersey Income Maintenance Experiment and the RAND Health Insurance Experiment, by contrast, were developed before the demonstrations got under way and were integral to their development.

Further, HCFA usually starts the research process with an RFP that indicates its research priorities. For example, in 1982 HCFA issued a request for demonstration proposals on Medicaid competition projects (HCFA 1982). States were encouraged to submit proposals that involved capitation, primary care case management, limitations on choice, and provider competition. For the current Medicaid demonstrations, states designed projects without formal notice from HCFA about its research priorities.

In contrast to the New Jersey Income Maintenance and RAND Health Insurance Experiment projects, there will be little pre-project data for these demonstrations. Utilization data from claims may be available for those Medicaid recipients who received care under fee for service, but they will not be available for those Medicaid recipients previously served by managed care and for those low-income persons newly covered by the demonstration. Surveys have not been conducted prior to the implementation of the demonstrations. Indeed, the earliest that a survey could be fielded for the Tennessee demonstration was estimated by Mathematica to be July 1996, two and a half years after the program began (Mathematica 1994). With careful planning and coordination between researchers and HCFA, an opportunity for fielding a survey prior to future demonstrations might be available, however.

Data collection will be extremely difficult for these projects. For example, these demonstrations require that all participating managed-care organizations submit 100 percent encounter data. Yet previous attempts at collecting such encounter data have been disappointing. Of the 30 health maintenance organizations that participated in a Medicare risk-contracting demonstration lasting from 1980 to 1985, only two could provide even partial encounter data (Langwell and Hadley 1990). Eight years after the creation of the AHCCCS, only half of the managed-care organizations could satisfy HCFA’s standards for encounter data (McCall et al. 1993).

²⁸ Not only is there no random assignment, there may be a selection bias in the sign-up for insurance among the previously uninsured because coverage is voluntary for noncategorically eligible persons.

Evaluations by Other Organizations

Additionally, some foundations are supporting research that will provide information about these demonstrations. The Kaiser Family Foundation and the Commonwealth Fund jointly have funded Mathematica to conduct case studies of Medicaid managed care in five states, two of which have demonstration waivers.²⁹ In addition, they are funding Louis Harris and Associates to conduct surveys to determine beneficiaries' knowledge and satisfaction with Medicaid managed care in Minnesota, Oregon, and Tennessee. Since the field work for these surveys will be conducted during 1995, they should provide earlier indications of the impact of the demonstrations than will HCFA's evaluations. On the other hand, they will not be as comprehensive.

PROPOSAL FOR REVISED WAIVER AUTHORITY

Currently, there is wide-ranging congressional debate about the nature of intergovernmental responsibilities, including the appropriate roles for the federal and state governments in certain programs. The potential restructuring of the Medicaid program is being considered. One proposal would swap responsibility for programs between governmental levels, shifting Medicaid to the federal government, and welfare to state and local governments. Another proposal would create a block grant program for the states to furnish medical care to the poor, replacing today's Medicaid program.

If the Congress decides to preserve the current administrative and financing structure of the Medicaid program, it could take an integrated approach involving two steps. First, the research basis for Medicaid demonstrations could be clarified in legislation. Second, the Congress could pass a new waiver authority to allow states to extend Medicaid coverage to those previously uninsured.

These two steps would preserve the research authority intended for the demonstrations, protect access and ensure quality, and provide states with greater flexibility. The adoption of these measures would respond to the growing interest among states to modify elements of their Medicaid programs. States that are seeking greater flexibility in designing their programs rather than experimenting with a unique program innovation could do so under the recommended new authority by meeting the conditions specified to protect access to quality care. Establishing research criteria for demonstrations would clarify the intent of this authority to allow for formal research based on demonstrations or experiments.

Criteria for Demonstration Waivers

The legislative language of the Social Security Act needs to be modified to reflect the research intent for Medicaid demonstrations. To better define the research purpose of Section 1115 Medicaid demonstrations, the legislation could include formalized processes, which were applied by previous administrations in implementing the demonstration waiver authority. HCFA could initiate the

²⁹ The five states are California, Minnesota, New York, Oregon, and Tennessee.

demonstration process with an RFP that includes topics that it considers of interest or, if the proposal were initiated by a state, HCFA could allow the demonstration to proceed only after the research design and the collection of pre-demonstration data was completed. An application for a demonstration would have to contain research methodologies including hypotheses, study design, data collection, database management, analysis plan, and analytic methods. An application also would have to contain meaningful phase-down plan to ensure an orderly transition when the demonstration ended. Demonstrations would be granted for fixed periods that were appropriate for the specific projects, but that could be renewed after HCFA reviewed them. The agency could approve demonstrations that were unique projects or those replications that would add substantially to scientific knowledge.

Adoption of these provisions would clarify and strengthen the research component of the Medicaid demonstrations. Such legislation, of course, would apply only to demonstrations approved after its passage.

New Waiver Authority

A new waiver authority could be created that would allow states to expand significantly Medicaid coverage to low-income residents in a budget-neutral fashion. This new authority would differ from the demonstration authority in that research would not be required for approval, but monitoring would be required. Granting these waivers for a longer time, such as for five years, and allowing for waiver renewal would secure the state's investment and preserve continuity of care for the beneficiaries.³⁰ This proposal would codify many of the stipulations that HCFA has placed in the terms and conditions for the recently approved demonstrations.

Increased use of the demonstration authority appears to stem from states' need for greater flexibility in meeting federal Medicaid requirements. Several years ago, the Advisory Commission on Intergovernmental Relations (ACIR) issued a report noting that Medicaid decisionmaking had shifted to the federal government and had failed to recognize that states have unique needs. Among other options, ACIR recommended more flexibility in the program (ACIR 1992). More recently, the NGA (1994) noted that Medicaid is a "rigid and overly complex program." The development of a new waiver authority would provide states with more flexibility for their Medicaid programs.

Adoption of a previous Commission recommendation would allow states more flexibility by changing the managed-care requirements (PPRC 1993). The Commission recommended that the Congress amend the 1915(b) waivers to (1) release states from the enrollment composition rule (75/25 rule), (2) allow states to restrict beneficiaries' disenrollment from risk-based organizations for six month enrollment periods, and (3) extend the waiver period for five years for those states in full compliance with the Health Care Quality Improvement System (HCQIS).³¹

³⁰ The National Governors' Association maintains that demonstration waivers are restrictive due to their research nature. Thus, in a recent policy statement, NGA suggests that these demonstration programs be handled with state plan amendments or with a streamlined waiver process without research for five-year renewable periods (NGA 1995).

³¹ The beneficiary would have an unfettered right to terminate enrollment during the first month; for the remaining five months, termination of enrollment would be allowed for cause only.

The Commission's current recommendation that the Congress adopt this new waiver authority would provide the states with additional flexibility, while ensuring access to quality care for beneficiaries. In approving these waivers, HCFA should take into account the state's previous experience with Medicaid managed care, market penetration of managed care in the state, adequacy of provider participation, and sufficiency of the state's monitoring infrastructure. States would need to have a public comment process that consists of public notice of a pending proposal at an early stage, public hearings, or an advisory board with broad community representation that conducts its work in open meetings to ensure that the plan had the broad support of beneficiaries, providers, and other citizens.

The basic framework for these waivers should include several crucial features. States should have to develop standards for plan financial solvency and marketing practices, as many have already done for commercial plans. Beneficiaries should have a choice of at least two managed-care plans, and states should distribute plan performance reports to beneficiaries. Copayments should be nominal, and not be applied to emergency and preventive services for enrollees below 200 percent of the federal poverty level. Copayments for those over 200 percent of poverty could be instituted to ensure that those consumers are cost conscious. HCFA should establish measurable standards for availability of care that ensure the maintenance of access to quality care. States should fund an independent ombudsman program that could investigate and resolve complaints.

Quality of care standards for managed-care plans that serve Medicaid populations under these waivers could be based largely on those for the private sector, relieving them of many duplicative requirements.³² Plans should have internal quality assurance systems that are equivalent to those used for managed care purchased by the private sector. To accomplish this, states could fully adopt HCFA's Health Care Quality Improvement System. Another option would be to require participating managed-care organizations to take significant steps to meet the accreditation standards of the National Committee for Quality Assurance or an equivalent organization within one year of signing a Medicaid contract, and be fully accredited within a specified period, such as three to five years.

Participating managed-care organizations should have to provide the state and HCFA with aggregate encounter data for monitoring quality and access for the Medicaid population as a whole and for relevant subpopulations. Finally, provider financial incentives used by plans should meet the OBRA90 requirements to prevent inappropriate underservice created by excessive financial incentives.³³

³² To lessen the burden created by multiple reviews with various standards, the Commission previously urged that Medicaid quality standards be coordinated with those of other payers, while recognizing the unique needs of the Medicaid population (PPRC 1992). The Health Care Quality Improvement System developed by HCFA does that by incorporating standards of the National Committee for Quality Assurance, National Association of Insurance Commissioners, the National Association of HMO Regulators, and HCFA's standards for Medicare. Additionally, the development of performance reports for Medicaid are following similar developments in the private sector (see Chapter 16). HCFA's experience with Health Care Quality Improvement System and the development of performance reports for Medicaid indicate that some additional measures and alternative methods of measuring similar variables need to be developed for the Medicaid population. It is expected, however, that these Medicaid modifications will be adopted by NCQA in the next version of the Health Plan Employer Data and Information Set (see Chapter 16).

³³ Contracting managed-care organizations could be risk contracting or primary care case management entities. For risk entities, requirements on financial solvency would be included.

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Part II

The Changing American Health System:

BACKGROUND

and OVERVIEW

THE CHANGING AMERICAN HEALTH SYSTEM: BACKGROUND AND OVERVIEW

Signs of change abound in the American health system. Leading corporate purchasers of health care have made fundamental changes in the way they purchase health services and are reporting lower cost growth as a result. Managed-care plans are evolving toward more integrated systems and closer relationships with their provider networks. Physicians and hospitals are joining together in new types of organizations, seeking changes in the way care is delivered. Continuing changes are seen in the mix of providers that deliver care, with shifts in service delivery from the hospital to various outpatient settings and from specialty care to primary care.

Many people in and out of government are optimistic that this dynamic, evolving marketplace will solve widely perceived concerns about excessive costs and gaps in access. Yet, even if the system is on the right path, it is critical that expectations stay aligned with reality. An apparent slowdown in the growth of public and private health spending might be either the start of a long-term trend or a transitory dip. State-initiated reforms of the small-group insurance market and purchasing pools created at both public and private initiative aim to provide the basis for better access to health care. It is not yet clear, however, whether and when these actions will reduce the ranks of the uninsured.

The pace of change varies widely around the country. Transformations of plan-provider relationships, mergers, and innovations in organizing the delivery of care are occurring at an especially dramatic rate in some markets. Even in markets traditionally labeled as more resistant to change, new physician groups and new managed-care plans are appearing. Rural areas, with their particular challenges, are experiencing a significant amount of network development.

The evolution of the system offers opportunities to policymakers, who are being asked to assess the need for policies aimed at accelerating market evolution or at mitigating potential adverse effects of changes. Policymakers must also anticipate the implications of change as they decide how to reorient public programs in light of changing market dynamics. To help serve these needs, the Commission has focused attention over the past year on the evolving market for health services and other changes in the health system.

This effort, highlighted in Part II of this report, has several purposes. First, it seeks to help the Congress gain systematic information about changes in health care delivery and financing so it can understand their impact on cost, quality, and access. In doing so, it considers how consumers, providers, and payers are affected by a more competitive market. This work attempts to assess the impact of integration and consolidation on physicians' practice options and on consumers' ability to choose among health plans and providers. It looks at whether changes in antitrust law or managed-care law should be made at either the state or the federal level. It also explores the types of

information needed to foster competition and how changes in health care markets affect the experience of using medical care.

The second purpose of this work is to inform policy development in Medicare and Medicaid to ensure that changes in those programs are consistent with the growth of managed care and integrated systems. Managed-care plans are looking at Medicare and Medicaid as potential growth markets in many parts of the country. Although total numbers remain modest, beneficiaries are increasingly responding to these options. The Commission's work should also assist policymakers as they consider reshaping these programs to integrate them more fully into the competitive market.

Public programs also benefit from quality assurance and performance reporting innovations in the private sector. As policymakers observe and encourage these changes, it is critical that they structure reforms in ways that put government programs among the leaders of change rather than in a position of responding. In areas such as coverage decisions or practice guidelines, federal policies may already serve as models for the private sector.

As described in Part I of this report, Medicare has been a leader in structuring fee-for-service payment reforms. The program benefited from these changes, and private plans have imitated some of them. But questions remain about whether slowdowns in federal program spending growth can be maintained. The private sector now appears to be moving more quickly than Medicare and Medicaid to pursue further innovations in the organization and financing of care and to slow spending growth. A better understanding of market developments across the country would allow public programs to benefit from these innovations.

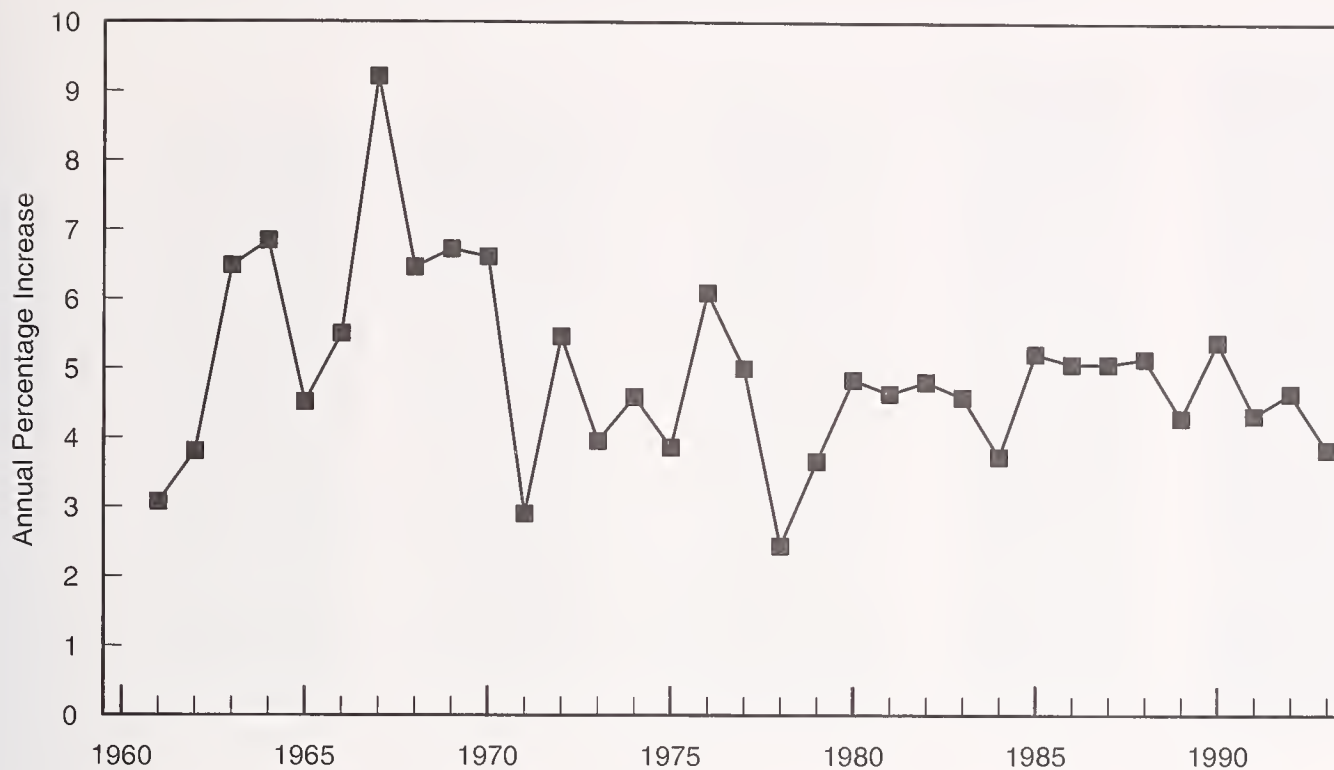
Finally, because a number of states are taking an active role in responding to market changes, the Commission is also following these state reforms. New rules for insurance markets have been passed by a large majority of states, and a few are beginning to find ways to oversee the emergence of new market entities. Information on these initiatives should help federal policymakers determine which issues can be successfully addressed at the state level and which, if any, warrant federal involvement.

The chapters in Part II of this report address many of these issues. This introduction provides a broad overview of the changing market. It briefly summarizes some indicators of change, and then addresses the evolution of the health system from the varying perspectives of purchasers, health plans, providers, consumers, and state and federal policymakers. The introduction concludes with a discussion of public policy responses to these changes.

SIGNS OF CHANGE

There are signs that the rise in health costs is slowing after years of growth. The government's estimate of total national health expenditures for 1993 was \$884.2 billion or 13.9 percent of the gross domestic product (Levit et al. 1994). The real growth of personal health care expenditures from 1992 to 1993 (adjusted for inflation) was one of the lowest since 1960 (Figure II-1). Experts debate,

Figure II-1. Real Growth in Personal Health Care Expenditures per Capita, 1960-1993



SOURCE: Physician Payment Review Commission analysis of Health Care Financing Administration data.

NOTE: Values have been adjusted for inflation.

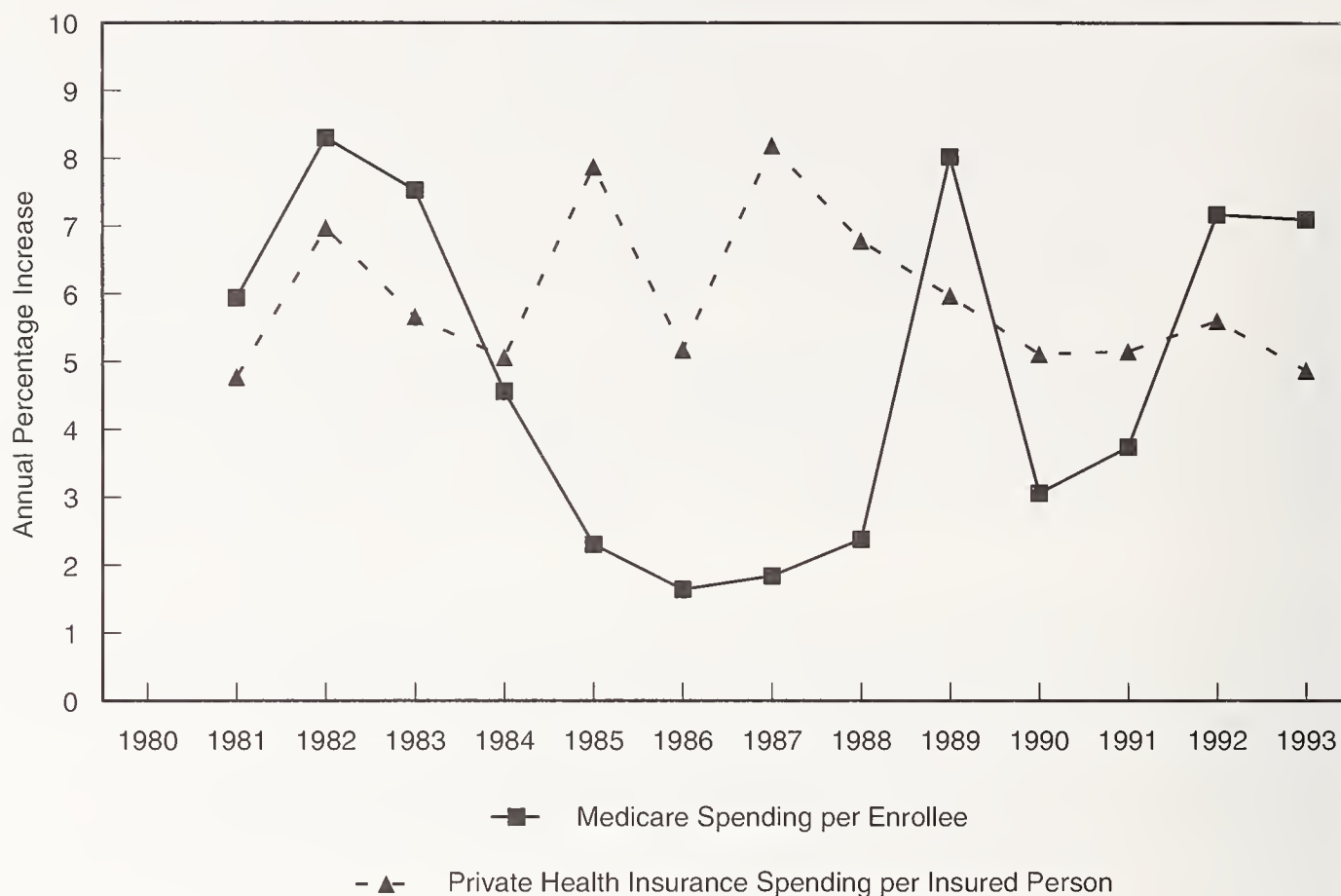
however, whether this slowdown will prove to be temporary (Aaron 1994; Huskamp and Newhouse 1994; Levit 1994).

These data show further that, although both private insurance and government spending growth have slowed in recent years, the rate of growth for private spending has slowed the most (Figure II-2). Real growth for private health insurance per insured person fell below the 5 percent level in 1993, while Medicare growth per enrollee has been about 7 percent for the past two years. As a result, the share of total spending attributable to private sources in 1993 dropped to 56 percent, the smallest proportion ever (Levit et al. 1994).

Industry surveys also report unusually low premium growth during the 1990s, with one survey's 1994 figure showing the first drop in employer health costs in a decade.¹ Some studies attribute these changes in part to the growth of managed care, but it is difficult to find consistent evidence. Data from one survey indicate no significant difference in premium increases between health maintenance

¹ Estimates vary in different surveys, none of which adjust for factors such as benefit changes. Foster Higgins (1995) reported a 1.1 percent drop in employer health costs in 1994, due mostly to employees moving from conventional insurance into lower-cost managed-care plans. KPMG Peat Marwick (1994) showed a 4.8 percent increase in premiums, lower than previous years.

Figure II-2. Real Growth in Medicare Expenditures per Enrollee and Private Health Insurance Expenditures per Insured Person, 1980-1993



SOURCE: Physician Payment Review Commission analysis of Health Care Financing Administration data.

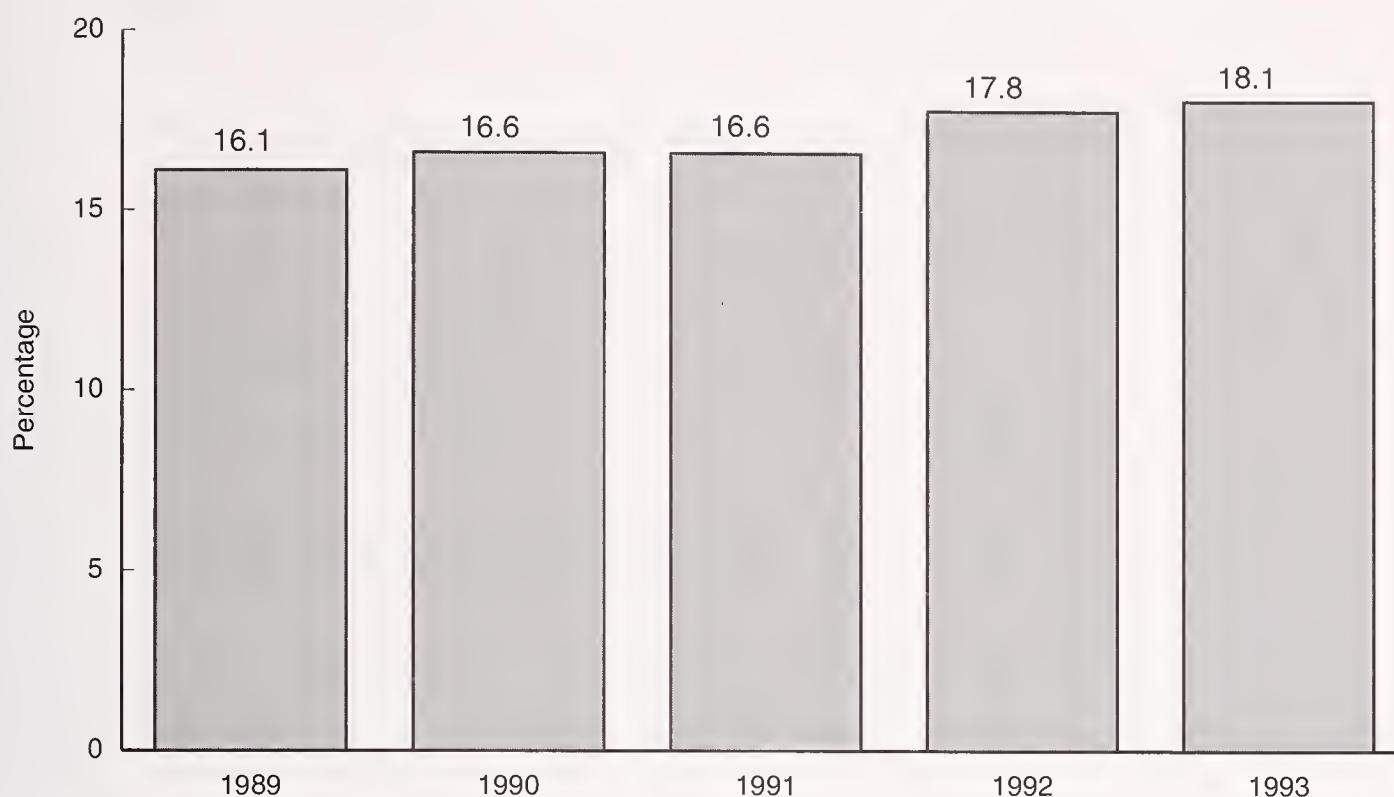
NOTE: Data represent personal health expenditures and have been adjusted for inflation.

organizations (HMOs) and conventional health insurance (KPMG Peat Marwick 1994). At the same time, another reports lower premium increases for HMOs (Foster Higgins 1995).

Access remains a key concern for the American health system. The number of nonelderly Americans who are uninsured has risen gradually to a level of 40.9 million, or 18.1 percent of the nonelderly population, in 1993 (EBRI 1995) (Figure II-3). Slower growth of private insurance premiums, if maintained, could help improve access for the uninsured. But the dynamics of a voluntary insurance market make it difficult for all to benefit. Nearly every state has tried to address the problems of the small-group insurance market by enacting guarantees of insurance availability for small groups, regardless of health status, and restrictions on allowed variations among the premiums charged. Yet questions remain about the impact of these reforms and about whether some uniformity across the country is needed (see Chapter 9).

Another critical indicator of change is the continuing growth of managed care. Enrollment has risen steadily since the 1980s (Figure II-4). Although numbers vary according to how managed care is

Figure II-3. Nonelderly Population without Health Insurance, 1989-1993



SOURCE: Employee Benefit Research Institute 1995.

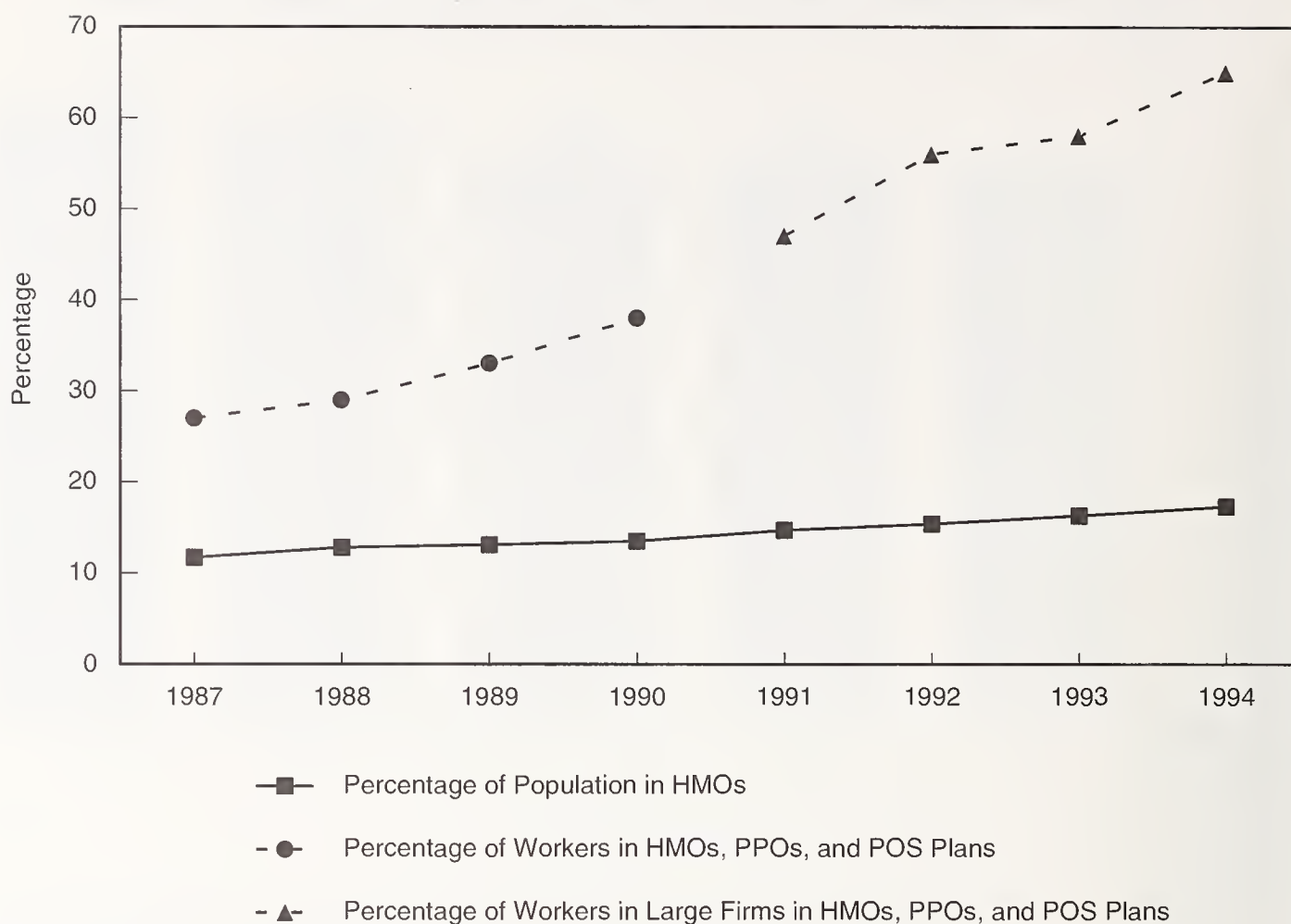
NOTE: The 1989-1991 and 1992-1993 data are based on population weights derived from the 1980 and 1990 censuses, respectively. These differences may affect the comparability of data across years. EBRI published estimates for 1992 using both methods. The old method results in an estimate that is lower by 0.4 percentage points than the figure used here.

defined, about 17 percent of Americans were enrolled in health maintenance organizations in 1994 (InterStudy 1994; GHAA 1994). Using a definition of managed care that includes preferred provider organizations (PPOs) and point-of-service (POS) plans as well as HMOs, 65 percent of insured workers in firms with 200 or more workers were in managed care in 1994, including 25 percent in HMOs, 25 percent in PPOs, and 15 percent in POS plans (KPMG Peat Marwick 1994).²

Annual growth rates for managed-care enrollment continue to be high (in the range of 5 percent to 10 percent), although not as high as in the mid-1980s when many of the looser forms of HMOs were gaining popularity. Growth is higher in some regions (e.g., the Northeast) and in some types of plans (e.g., POS plans) than others. But most urban markets around the country are becoming more

² This definition excludes people in managed indemnity plans. Numbers in these surveys differ from those on HMOs because the denominator includes workers, not the entire nonelderly population. Surveys also differ by the size of firms included. In addition, enrollment figures for PPOs are often expressed in terms of eligible populations and thus would count people in fee-for-service arrangements who never use the PPO providers or whose long-time providers are part of the PPO network.

Figure II-4. Trends in Managed-Care Enrollment, 1987-1994



SOURCE: InterStudy 1991,1994; Hoy et al. 1991; KPMG Peat Marwick 1994.

NOTE: Data for 1987-1990 cover all firms, and data for 1991-1994 cover only large firms. Based on one study (Gabel et al. 1994) that supplemented the large-firm survey with smaller firms, the estimated percentage of all workers in managed care for 1993 is about 7 percentage points lower than shown here. PPO refers to a preferred provider organization, and POS refers to point-of-service.

competitive and more receptive to managed care in general. In a Commission-sponsored survey of managed-care plans, about three-fourths of surveyed plans reported that they expected general market competitiveness to “increase a lot” over the next three years.³ In rural areas, managed-care penetration remains low, though it has grown significantly (see Chapter 12).

Physicians’ willingness to participate in managed care has grown steadily as well (Table II-1). Whether measured by the proportion of physicians with any managed-care contract or by the proportion of physician revenue coming from managed care, levels rose by one-fourth to one-half in just five years

³ For more detailed information on this survey, conducted for the Commission by researchers at Mathematica Policy Research and the Medical College of Virginia, see Chapter 10. For a full report on its methodology and findings, see Gold et al. (1995).

(Gillis and Emmons 1993; Emmons and Simon 1994). According to the Commission's survey, a substantial majority of plans stated that the willingness of both primary care physicians and specialists to affiliate with managed care had "increased a lot" compared to three years earlier (Gold et al. 1995).

Table II-1. Physician Involvement in Managed Care, 1988-1993 (percentage)

Indicator	1988	1989	1990	1991	1992	1993
Physicians with Any Managed Care Contract	61	59	61	65	70	75
Physician Revenue from Managed Care, among Physicians with Contracts	23	26	29	29	32	35

SOURCE: Emmons and Simon 1994; Gillis and Emmons 1993.

Although these signs of change are strong, research studies attempting to evaluate the impact of change continue to be limited and often inconclusive, frustrating both supporters and skeptics. According to Miller and Luft (1994a; 1994b), research literature evaluating the cost effectiveness of managed care supports findings that HMOs have lower hospital utilization and use less costly alternatives to expensive procedures than fee for service. It fails to show the same savings on the physician side, perhaps because outpatient care is being substituted for hospital care. The literature, according to Miller and Luft, also shows that HMOs appear to maintain quality of care at levels roughly comparable to fee-for-service medicine. A government study of employers' costs yielded similarly mixed results (GAO 1993).

The Congressional Budget Office (CBO) is asked by the Congress to score savings attributable to managed care for purposes of various legislative initiatives. In its most recent review, CBO concluded that the most effective HMOs reduced use of services by about 20 percent, while the average HMO lowered costs by 9 percent compared with fee-for-service plans. This scoring partly reflects CBO's conclusions that nearly all fee-for-service plans incorporate elements of utilization management and that independent practice association (IPA) HMOs often lack the characteristics of an effective HMO (CBO 1995). Miller and Luft (1995), however, find that there are plausible alternative scenarios in which managed care and managed competition will lower the health expenditure growth rate more substantially than CBO's finding.

DRIVERS OF CHANGE

Part I of this report described some of the changes in health care initiated by public programs. In the private market for health services, purchasers and the consumers they represent are frequently described as key forces driving change. Rising health costs, including growing expenditures for retirees, have led many employers to shift from a role as passive purchaser to one of greater involvement, either alone or through business coalitions.

Historically, corporate purchasers saw health insurance as both an employee benefit and an expense to the company. As a result, their interest in cutting costs was tempered by reactions of their employees. Decisions to control costs through strategies such as utilization management were balanced against the hassle that employees (including corporate executives) would face. Similarly, attempts to limit payments to providers through methods such as fee screens led to higher out-of-pocket costs for employees. These conflicting tensions led many firms to adopt rather passive roles, minimizing conflicts with employees.

In the last decade, continuing increases in health spending and periods of recession have combined to pressure companies to reconsider the role of passive purchaser. Escalating retiree health costs made the problem more serious for some established industrial firms as the ranks of retirees grew relative to the work force. As a result, businesses were confronted with a need to be more efficient, productive, and better at managing expenses.

Corporate purchasers have taken different routes to achieving cost-containment and quality goals. Certain large employers have become more active purchasers on their own. Smaller firms often lack the leverage to adopt the strategies taken by large employers. Even they are seeing changes, however, simply because the health plans with which they contract are moving toward more management and more integration of health services.

Many firms find it easier to join with other companies as part of business coalitions. According to the National Business Coalition on Health, an estimated 125 employer coalitions nationwide represent about 10,000 companies insuring more than 35 million people. Depending on the market, coalition development has been either the product of collaboration among large businesses or a vehicle for smaller employers to pool their purchasing power, or both.

Purchasers, either in coalitions or alone, have pursued strategies that range from moving employees into managed care to broader efforts to address the underlying causes of excessive costs. The decision to become a more active purchaser of health benefits typically starts by adding managed-care plans to employees' options and progresses to phasing out unmanaged indemnity insurance. Of those Americans who get insurance through the workplace, the proportion who had no option for conventional (nonmanaged) insurance rose from 10 percent in 1988 to 35 percent in 1993 (Gabel et al. 1994). Smaller companies are less likely to have taken these steps. About 60 percent of small businesses (fewer than 50 employees) that offer insurance made available to their employees only a single conventional plan in 1993 (Morrisey et al. 1994). Some purchasers apparently use point-of-service options or PPOs as a transition to ease employees into managed care.

Beyond basic steps to increase their use of managed care, more aggressive purchasers have moved to establish accountability with the health plans and providers they use. Instead of passively taking the premiums that health plans offer them, they approach purchasing of health plans the way they do other products. This may involve competitive bidding for plan contracts and long-term relationships with plans that allow purchasers to specify requirements, such as data collection or performance standards, that go beyond price.

The search for more accountability led several large employers, in concert with leaders in the managed-care industry, to develop a system to measure health plan performance in a standardized format. It also led a number of large employers to devote more resources to measuring their employees' attitudes about their health benefits (see Chapter 16).

Some purchasers have tried to use what they learn to restrict the number of plans offered and to encourage employees to make informed, cost-conscious choices. Doing so makes it far easier to establish accountability by giving purchasers more leverage with health plans. Some have undertaken a total replacement strategy, moving all their employees to a single managed-care company, generally one that offers multiple products. Others have limited offerings to those plans that respond successfully to their specifications or that win a competitive bidding process.

Some large purchasers or coalitions have been successful recently in using their purchasing clout to negotiate with health plans for lower premium increases or even reductions. They may bargain collectively with plans to be offered, exclusively or optionally, to their employees. If their market share is large enough, they may succeed at telling plans how high a premium they are willing to pay. Coalitions in all regions of the country claim success in reducing premiums as much as 10 percent and sustaining these reductions for several years.

A final strategy, one of the most important for looking at health system change, is for purchasers to discuss underlying cost and quality concerns with providers. They may seek efficiencies that could benefit the entire community rather than negotiate discounted rates that may shift costs to other purchasers. Active purchasers in some areas have worked with local providers to develop data systems, and some use the information to choose providers based on performance.

THE LOCUS OF CHANGE

If purchasers are a key driver of change, then health plans and provider groups are where much of the change is occurring. Plans and providers are also initiating changes as they seek ways to deliver care more effectively and at lower costs.

It is striking how much the managed-care world has changed in the three years since the Commission last studied these organizations and the techniques they use to manage care (PPRC 1992). The Commission focused more on what managed-care plans were doing to improve quality and efficiency or to control costs than on the institutional structures of managed care. It pointed out the uncertainty over the success of managed care in containing costs and maintaining quality and the direction of its evolution. Change has occurred rapidly during recent years, but the answers to these questions remain uncertain.

Terms like HMO and PPO are common in popular parlance and are written into state laws, yet the "alphabet soup" of managed-care acronyms has become increasingly less descriptive of reality (Table II-2). They are quickly becoming less salient as insurers and managed-care companies offer

Table II-2. Types of Managed-Care Plans

Type of Plan	Definition
Staff-Model HMO	A plan that directly hires its physicians.
Group-Model HMO	A plan that contracts with a single physician group, usually on an exclusive basis.
Network-Model HMO	A plan that contracts with several physician groups, usually on a nonexclusive basis.
Independent Practice Association (IPA) HMO	A plan that contracts with individual physicians or physician groups, usually on a nonexclusive basis.
Preferred Provider Organization (PPO)	A plan that contracts with individual physicians for fee discounts, but which is usually not at risk.
Exclusive Provider Organization (EPO)	A type of PPO in which enrollees are only covered for services of network providers.
Managed Indemnity Plan	A plan that imposes some type of utilization review on the care delivered by any provider. Providers do not have contracts with the plan.
Point-of-Service (POS) Plan	A managed-care product, sometimes called an open-ended HMO, in which the enrollee has the option of obtaining care from a nonnetwork provider at a higher out-of-pocket cost.

SOURCE: Physician Payment Review Commission analysis; Group Health Association of America 1994.

new products and modify old ones in response to purchasers' demands. Provider networks and integrated systems with names like physician-hospital organizations (PHOs) and integrated service networks—some bearing risk and some not—are growing rapidly and are even harder to classify. While the numerous and rapidly changing labels may be confusing, the changes they represent are important.

Plans are forging closer relationships with their network physicians, whether to achieve cost efficiencies, to improve the delivery of care to enrollees, or both (see Chapter 10). Plans are moving along the continuum from indemnity to PPO or IPA, from PPO to HMO, and from IPA to network or group-model HMO.

At one end of the continuum, conventional insurers are creating networks and are trying to shift their enrollees to managed plans. For example, Blue Cross Blue Shield plans in several regions are creating PPOs, initially building on their existing participating provider networks, as a first step in a strategy of moving people to accept networks. This shift is driven by insurers' desires both to position themselves better in the market in response to active purchasers and to urge other purchasers to choose plans where better value can be offered.

Further along the spectrum, some PPOs are starting to accept financial risk to survive in the changing market. From the purchaser's perspective, use of a PPO saves money because participating providers agree to accept discounted payment rates. To avoid being at risk for the volume of services their members receive, purchasers are either transferring risk to the health plan or at least sharing risk. For some PPOs, accepting risk may require legal or organizational changes. Nevertheless, PPOs remain quite different from HMOs in how they pay their physicians and in the tools they use to manage care and ensure quality, as shown in the Commission-sponsored managed-care survey (Table II-3).

Table II-3. Comparison of Health Maintenance Organizations and Preferred Provider Organizations, 1994 (percentage of responding plans)

Plan Characteristic	HMOs	PPOs
Capitation as Predominant Payment Method for Primary Care Physicians	48	7
Capitation as Predominant Payment Method for Specialists	24	0
Any Use of Profiling	82	52
Any Use of Practice Guidelines	76	28
Any Use of Quality Monitoring with Focused Studies	73	31
Any Use of Utilization Review	99	86
Extensive Plan Use of Medical Records	54	10
Extensive Management Structure for Quality Assurance	87	34
Plans Responding (number)*	79	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

* The number of plans responding to any one question may be lower than this total.

Toward the other end of the continuum, some IPA plans are moving toward a more integrated structure. This appears to be a conscious strategy for commercial insurers seeking increasingly to position themselves as managed-care companies. Several large insurers took steps last year to convert their IPA plans into other types of HMOs (Mlawsky 1994). The managed-care survey showed that network and IPA HMOs are becoming harder to distinguish from group and staff HMOs (Table II-4).⁴ Although they differ substantially on the types of groups they work with and the ways they pay physicians, they have generally similar approaches to managing the care their enrollees receive (see Chapters 10 and 16).

⁴ The survey combined group and staff-model HMOs as one category and network and IPA HMOs as another for sampling purposes. This grouping may mask some differences (e.g., use of salary).

Table II-4. Comparison of Types of Health Maintenance Organizations, 1994 (percentage of responding plans)

Plan Characteristic	Group/Staff HMOs	Network/IPA HMOs
More Than Two-thirds of Plan's Enrollment in Multispecialty Groups of 16 or More Physicians	59	10
Plan Members Comprise at Least 80 Percent of Typical Physician's Practice	44	4
Capitation as Predominant Payment Method for Primary Care Physicians	34	56
Salary as Predominant Payment Method for Primary Care Physicians	28	2
Capitation as Predominant Payment Method for Specialists	31	20
Any Use of Profiling	76	86
Any Use of Practice Guidelines	76	76
Any Use of Quality Monitoring with Focused Studies	79	70
Any Use of Utilization Review	97	100
Extensive Plan Use of Medical Records	48	58
Extensive Management Structure for Quality Assurance	83	90
Plans Responding (number)*	29	50

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

* The number of plans responding to any one question may be lower than this total.

Physicians are changing their roles in the health care system as well. Not only are more physicians practicing in groups and joining managed-care networks, but the groups they are in are also changing.

One major recent trend in the evolving health care market is the movement toward greater integration of health care providers. Physicians, hospitals, and other formerly independent providers are joining in a variety of arrangements to create integrated delivery systems (see Chapter 11). Relatively little is known about the number and size of existing PHOs, let alone about the impact of integration on the cost and quality of care. To the extent that they take on risk, they are no longer just contracting provider groups. On the one hand, they may be transitory organizations that will become indistinguishable from HMOs. Alternatively, they may remain important distinct entities that work in partnership with health plans.

These integrated provider organizations may also offer purchasers an opportunity to bypass the insurer and contract directly with providers. This option is especially attractive in those markets where integrated delivery systems are already put at risk for inpatient and outpatient services by health plans and are asked to take on functions such as utilization review, quality assessment, and recruitment of new physicians.

The move to managed care and the emergence of integrated systems are among the forces that are changing the labor market for physicians. For several years, the Commission has been concerned that there may be an oversupply of physicians and that too many physicians are being trained in highly specialized fields relative to the number of generalists. Some now suggest that these problems will be resolved as the marketplace becomes more competitive. Market changes appear to be increasing incomes for generalist physicians, but there is little indication that overall job prospects for physicians are tightening. It may be too early, however, to see widespread effects on this labor market (see Chapter 14).

All these changes vary substantially around the country. In particular, characteristics of many rural health care markets create both challenges and opportunities in adapting to change (see Chapter 12). New types of provider networks and managed-care plans, attributable to both public and private initiatives, are appearing in rural areas. The continued ability of rural providers to participate in the changing market environment will be enhanced through better coordination of policies such as provider recruitment and retention, Medicare payment rules, and antitrust statutes.

THE RESPONSE OF PUBLIC POLICY TO SYSTEM CHANGES

A critical question for policymakers is whether federal and state laws are retarding in any way the evolution of the health system. Some argue that federal antitrust laws, traditional state laws that regulate insurance and managed-care organizations, and newer rules such as “any willing provider” laws may make it harder for new forms of delivering or providing care to emerge. Others worry that new delivery systems are developing outside the protections enacted for consumers and providers, and that existing law is limiting the ability of federal and state governments to revisit these protections. In addition, longstanding concerns about the need to reform medical liability law take on a new urgency with the rapid movement of physicians into systems of care.

By tradition and by law, federal and state governments have shared responsibility for several types of oversight of the health system. A complementary system has evolved, primarily based on the Employee Retirement Income Security Act of 1974 (ERISA), to oversee employer-provided health benefits. In it, the federal government regulates employers but not insurers, while the states regulate insurers but not employers (see Appendix C). Antitrust law, although not specifically written for the health system, is also shared between federal and state governments. Similarly, although many states continue to debate medical liability reform, the federal government is also considering a broader role.

Decisions by some integrated delivery systems with regard to taking on risk, a substantial rise in the rate of mergers and consolidation among health plans and provider groups, and physicians’ desires to

develop their own delivery systems have brought antitrust law to the front of the health policy debates. The Commission this year has studied whether changes are needed in federal antitrust law to avoid impeding the formation of physician-sponsored networks that would benefit consumers (see Chapter 13).

Medical liability reform is a longstanding interest of the Commission. This year it has reexamined its previous recommendations in light of new developments in the market. As the growth of managed care changes the incentives of physicians and hospitals, the role of the medical liability system in ensuring quality and preventing medical injuries assumes greater importance. In addition, as integrated systems grow, the issue of enterprise liability—where the organization, not the individual physician, is at risk—may become more important. The Commission has identified short-term reforms that will improve the functioning of the current liability system. It has also outlined steps that should be taken now to develop a substantially different future liability system, one that would be better aligned with other changes in the market (see Chapter 15).

Another area where perspectives differ on the role government should play is in shaping how the changing market should affect individual consumers and providers. All the changes initiated by purchasers, plans, and provider groups affect profoundly the relationships that consumers have with the health care system. Because some consumers and providers feel vulnerable to the new directions the system is taking, they may turn to government for protection from policies such as restricted provider networks.

States have traditionally been the chief regulators of the insurance industry. Although the federal government is not prevented from regulating insurance, it has historically abstained from doing so. Until recently, state insurance law has focused on consumer protection by ensuring the solvency of health plans. Insurance laws typically have covered financial solvency, licensing of carriers, and review and approval of premium rates and policies. As health costs rose and problems of access became a policy concern in recent years, state legislators turned their attention to issues of expanding access, continuity of coverage, and premium variations based on health status, especially for the small-group and individual insurance markets. Today, most states have adopted insurance market reforms to address these issues (see Chapter 9).

Significant changes in the health services market also raise questions about the adequacy of state and federal policies both to facilitate (or at least not impede) positive developments and to provide protection for those adversely affected by the change. The emergence and growth of the first generation of managed care (i.e., HMOs) caused many states to reassess their policies to respond to the entry of these organizations into the marketplace. State policies that addressed concerns about the impact of managed care on consumers and providers were precursors to more recent actions surrounding the development of new service delivery systems (see Chapter 11 and Appendix D).

Driven primarily by concerns for public accountability of emerging delivery systems—especially those that are assuming financial risk—states are grappling with how to respond to changes in the marketplace. States are trying to determine ways to ensure that these new entities remain fiscally

solvent so that consumers and providers are protected. As they reexamine current law, they must weave their way through potentially contradictory paths of encouraging new developments with the potential to advance state goals for access, cost containment, and quality, and responding to legitimate fears that those benefits will come at the cost of diminished freedom of choice for consumers and providers (see Chapters 10 and 11). At the same time, the limits imposed by ERISA make it harder for states to take some of the steps they consider necessary (see Appendix C).

Quality assurance is another arena where concerns about system change have come to the forefront. Private health plans are taking accreditation, quality reviews, and performance reports more seriously as competitive tools, and purchasers view them as ways to gain information and achieve accountability. Public policymakers are following these activities with great interest and looking at their applicability to public programs (see Chapter 16).

The variation in practice patterns exhibited by physicians is a quality concern because different practices may present different risks for patients, result in different outcomes, and incur different costs. In an effort to facilitate informed decisionmaking and reduce unwarranted variation, practice guidelines are being developed by both government agencies and private groups. Increasingly, health plans and others are using guidelines as tools for managing care and as components of quality improvement efforts. The Commission has had a longstanding interest in practice guidelines, and this year made recommendations to improve guideline development and to facilitate both implementation by organized groups and use by individuals (see Chapter 17).

The pace of change in the health system has been rapid. The Commission is seeking through the work described in this report to inform the Congress about these changes. Some government policies may be important in the short term to remove impediments to the market's evolution or to offer needed protections to consumers and providers. In other areas, watchful waiting may be critical to ensure that policymakers are prepared to respond if and when future developments warrant it.

The Commission also believes that the work described in Part II of this report will help policymakers keep Medicare and Medicaid policies aligned with developments elsewhere in the health system. Private-sector innovations in areas such as quality assurance, performance reporting, practice guidelines, and selective contracting for specialized services already have potential as models for Medicare and Medicaid policies. In the longer term, these public programs need to be designed in ways that both benefit from and encourage future evolution of the health system.

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INSURANCE REFORM IN A VOLUNTARY MARKET

Numerous state and private-sector initiatives in recent years have reformed some aspects of the health insurance market. Such reforms must balance goals of improving consumers' access to insurance and reducing premium variation with the fact that, in a voluntary market, groups or individuals can drop coverage if their insurance cost exceeds their expected health expenditures. Current state and private efforts are, in effect, a set of experiments in reorganizing the small-group insurance market in the absence of compulsory insurance coverage. These different experiments should reveal the effects of market reforms on insurers' ability to offer and consumers' ability to purchase coverage. They may also help identify what, if any, federal action is necessary to enhance the effectiveness or feasibility of certain types of insurance market reforms.

RECOMMENDATIONS

Reform of the small-group market, whether at the federal or state level, should be based on several complementary elements.

Market rules should guarantee that:

- **plans accept everyone regardless of health status,**
- **plans guarantee to renew existing coverage with limited premium increases,**
- **exclusions of preexisting conditions be limited to persons not previously insured and extend only for a limited time, and**
- **selective marketing practices be restricted.**

Some form of community rating should be applied to the premiums charged by a health plan to defined classes of consumers. For a specific class, a limited degree of premium variation could be allowed. Health status, race, and sex should not be used to define a class.

Risk adjusters that predict differences in utilization or cost should be prospectively applied to payments to plans to reflect the expected relative risks of those they enroll. Some form of prospective reinsurance pool, retrospective stop-loss reinsurance, or partial capitation should supplement the use of risk adjusters.

Access to purchasing groups should be made available to small businesses and self-employed people to enhance their positions as purchasers in the insurance market. State and federal policies should support these groups through steps such as removal of statutory and regulatory barriers or creation of administrative structures.

The federal government should monitor and evaluate state and private-sector initiatives, so that their impact on insurance availability and premiums can be accurately assessed. These activities could allow the Congress to assess the desirability and design of uniform federal standards, as appropriate.

In combination, market rules, rating reforms, risk adjustment, and expanded group purchasing are expected to create a competitive small-group market in which insurers compete on the basis of efficiency and service, not risk avoidance. These reforms should also insulate insurers better from the financial risk of enrolling a disproportionate number of subscribers with extraordinary health care needs.

The interrelationship of these reforms is critical to their effective operation. For example, the requirement that insurers must offer coverage to any consumer is designed to improve access to insurance for those extraordinarily high-risk individuals and groups that have previously been unable to buy insurance. This requirement may not be effective in improving access, however, if it is not accompanied by some framework for premium determination that ensures that premiums for such consumers are not exorbitant. To avoid penalizing health plans, this requirement must also be accompanied by some risk adjustment of payment to plans. Similarly, the effectiveness of purchasing groups is enhanced by the presence of the market rules, rating framework, and risk-adjustment approaches proposed above.

Different combinations of these elements have been included in model state laws recommended by the National Association of Insurance Commissioners (NAIC), recent state legislation, and the policies of employers and purchasing groups. The impact of reforms on the availability of coverage and premium levels is unknown and sometimes in dispute, but it should become clearer as innovations are implemented and mature. The questions that might be answered through monitoring of these natural experiments include:

- What is the net impact of small-group insurance reforms on the number and types of people with insurance?
- What is the impact of reforms on premiums, both in the short term (when effects may be distorted by insurer uncertainty) and in the long term?
- How do the characteristics of different reform packages—the particular combinations of market rules, rating restrictions, risk adjustment, and creation of purchasing groups—affect the number and composition of the uninsured?

- What are spillover effects of small-group reforms on individuals and large groups in other parts of the health insurance market? How are premiums for both group members and others affected by the existence of a voluntary purchasing group?

The federal role in the short term is unclear. Some observers argue that federal action is critical to ensure a level playing field across the country and to provide some minimum protection to all citizens. Others argue that such action is unnecessary because of state and private innovations and would prefer to allow state experimentation to continue until some assessment can occur. The Commission emphasizes the importance of understanding the impact of state reforms, and it believes that much can be learned in a short time from existing data resources. Timely analysis of current innovations should inform discussion of the necessity and design of uniform federal standards.

This chapter first reviews basic incentives in the market for health insurance, problems that exist in the market today, and the key reforms that the Commission has recommended for the small-group insurance market.¹ The next section describes some of the experiments under way or under discussion that are likely to provide insights into these issues in the next few years. The final section summarizes the potential implications of these experiments for federal policymakers.

FRAMEWORK FOR REFORMING THE SMALL-GROUP INSURANCE MARKET

Some characteristics of the health insurance market, such as the use of health status to determine premiums, concern many observers but are inevitable results of the incentives in the market. Although an oversimplification, these incentives can be summarized as follows:

- consumers want to pay the lowest premium possible for a given insurance product and will ultimately forgo coverage if premiums substantially exceed their own expected health expenditures; and
- insurers want to avoid financial loss, so do not want to enroll subscribers at premiums below their expected incurred health costs.

These incentives have led predictably to widespread use of techniques such as experience rating and medical underwriting. Insurers use experience rating to tailor premiums to consumers' expected outlays, thereby reducing both insurers' financial risks and the premiums paid by healthy individuals and groups, while increasing premiums paid by those deemed at higher risk. They use medical underwriting to exclude individuals, groups, or coverage for certain conditions that are expected to incur high costs. Both the basic incentives and the insurance practices have led to market characteristics that concern many observers. Some of the commonly cited concerns include:

¹ More detailed discussions concerning the characteristics of the insurance market and the potential role of recommended reforms can be found in Chapters 6, 7, and 8 of the Commission's *Annual Report to Congress 1994* (PPRC 1994).

- unaffordability or unavailability of coverage for people who are expected to have high levels of health expenditures, either because of health status or factors that are correlated with health status, such as type of employer;
- differences in premiums paid by consumers in the individual or small-group market versus those in the large-group market; and
- interruptions in or loss of coverage due to changes in employment status or location.

The response by most states to these concerns was preceded by NAIC's development of a set of model laws for small-group insurance reform, which it recommended to the states in 1991 and 1992. The model laws require that insurance be offered to all small employers, without regard to health status, and that premium variations be limited. They also address reinsurance and standards to ensure fair marketing. Revisions to these model laws, including stricter limits on premium variations, were approved by NAIC in March 1995. NAIC is also considering model laws for purchasing groups or alliances and for the individual market.

In its 1994 annual report, the Commission analyzed the rules of the insurance market, community rating, risk adjustment of payments to plans, and the role of purchasing groups. It concluded that, together, reform in these areas should improve the functioning of the insurance market for individuals and small groups (PPRC 1994). The rest of this section reviews the complementary elements in the Commission's recommendations.

Market Rules and Rating Restrictions

Changes in rating practices to reduce premium variation and the introduction of market rules, such as guarantees that groups can renew their policies and limits on preexisting condition exclusions, are designed to promote competition, equitable premiums, and access to insurance for small groups with large predicted health expenditures. Reforms would make coverage available to and more affordable for those with higher-than-average risk by pooling risk more broadly and reducing the connection between consumers' health status and the premiums they pay. While these steps should lower premiums for high-risk consumers, they will raise them for low-risk consumers. In a voluntary insurance market, some low-risk consumers may conclude that it is in their best interest to go without coverage rather than pay premiums that greatly exceed their expected health costs, thus raising the average costs for those who are insured.

The Commission's first recommendation calls for market rules that would help reduce risk selection by limiting insurers' ability to exclude groups and would help promote continuity of coverage by reducing the incentive for both groups and insurers to change their insurance contracts. The specific rules are:²

- *Guaranteed issue.* All insurers that sell policies in the small-group market must offer those same policies to all small employers, regardless of the health condition of their employees. Insurers must limit the length of any exclusion (e.g., six months) for preexisting conditions.

² Additional rules for a standard benefit package and coordinated seasons for open enrollment were included in the Commission's recommendations last year. Although these rules promote competition when people have a choice of plans, it is not essential that all plans offer the same benefits.

- *Guaranteed renewability.* The small employer must have the option to renew its health plan except in limited circumstances (e.g., nonpayment of premiums or the insurer's withdrawal from the market). Premium increases are limited to a certain percentage over the increase in that insurer's rate for new business.
- *Portability.* Insurers must waive the preexisting condition exclusion for a person who was previously covered as recently as 30 to 90 days earlier.
- *Marketing restrictions.* Health plans must not use selective marketing practices aimed at attracting less risky consumers.

These rules are similar to those included in the NAIC model laws.

The Commission's second recommendation for insurance reform calls for the introduction of some form of community rating or rating restrictions for the small-group market. Without a limit on premium variation, the guaranteed issue requirement could become meaningless. Insurers may choose to define premium risk classes based on certain characteristics, but health status, race, and sex should not be used as bases for defining premium classes. Separate limits could be placed on the allowed variations either between classes or within a class.

NAIC's model laws, for example, limit the difference between the lowest and highest premium rates charged to different premium classes to 20 percent and the variation within a premium class to 25 percent. In general, these models only allow premium risk classes to be based on age, sex, industry, geographic area, family composition, and group size.³

Because the Commission is concerned about how community rating applies to particular geographic areas, it suggests that areas be defined in which insurers offer community-rated premiums. Community-rating areas should not divide metropolitan areas, which are typically integrated health insurance markets, regardless of state boundaries.⁴

Risk Adjustment and Reinsurance

These market rules and rating reforms will by themselves put insurers in a more vulnerable financial situation, since premiums will no longer reflect the expected risk of each insured group. An insurer will have financial problems if it receives premiums appropriate for typical consumers, but attracts consumers who have higher-than-average health costs. Both state insurance regulation and premium competition in the marketplace may make it difficult for such an insurer to raise premiums.

³ Some states have used an alternate rating band approach developed by the Health Insurance Association of America. NAIC's newly approved model law goes further by prohibiting all variations in the adjusted community rate except for geographic area, family composition, and age. It also limits the total variation allowed for age.

⁴ NAIC's newly approved model law does not specify the geographic area to be used but notes that states might use a metropolitan statistical area, a county, or a three-digit ZIP code area as a minimum geographic area.

The Commission has recommended use of some mechanism for adjusting the payments received by plans to reflect the risk of their subscriber pool. Because market rules are designed to limit insurers' ability to avoid high-risk subscribers, such adverse selection could drive an insurer out of the marketplace. To prevent this, payments to plans should be adjusted to reflect the risk of their enrollees and to reduce further the incentives for risk selection. While available risk adjusters are inadequate to protect insurers fully, their use together with reinsurance mechanisms should help markets function better.⁵

In a voluntary market, risk adjustment could be administered in several ways. Employers or purchasing groups could use risk adjusters to modify the published premiums seen by their employees. Alternatively, a state could create a pool through which all health plans transfer money based on differences in risk profiles. NAIC offers states several reinsurance approaches, including prospective reinsurance on a voluntary or mandatory basis, in its model laws.

Role of Purchasing Groups

An additional element of the insurance market is the existence and changing role of groups as self-insuring entities or purchasers of insurance. This is the area where innovation has been most evident. New types of purchasing groups are being formed by some states or employers to serve consumers not working for large employers.

Traditionally, employers, unions, and other natural groups have provided their members access to insurance for which premiums are generally lower than those in the individual market. The reduced premiums reflect some combination of administrative and marketing savings realized by insurers when working with a group instead of many individuals, group purchasing clout, and the increased reliability of underwriting risk for large groups where few members opt to go without coverage.⁶

Employer subsidization of premiums encourages a large share of employees to buy coverage, which helps reduce adverse selection and keep premiums at more attractive levels for employees.⁷ Large employers benefit the most because of their size and relative stability. Because they can spread risk internally, they can also opt to self-insure, exempting them under the terms of the Employee Retirement Income Security Act (ERISA) from various state regulations that may lead to higher costs (see Appendix C). Nonemployer groups, such as veterans or trade associations, may reap some of these same benefits if attributes of group membership are well defined or if they guarantee that a high

⁵ See Appendix B for a brief update on new research on risk adjustment, including the Commission-funded study by the Park Nicollet Medical Foundation and the Johns Hopkins University.

⁶ The differences in administrative expenses can be substantial. For firms with fewer than 20 employees, administrative expenses are from 30 percent to 40 percent of claims; for firms with more than 10,000 employees, administrative costs are 5.5 percent of claims (CRS 1988).

⁷ Only 2 percent of employees eligible for insurance from their employers turn down the offer of insurance and remain uninsured. Another 11 percent get coverage elsewhere, generally from a spouse's employer (Long and Marquis 1993).

percentage of members buy insurance. These conditions reduce the ability of individual group members to subscribe only when services are needed.

In theory, purchasing pools can provide both the administrative economies and risk pooling associated with larger group size. In practice, they must address the fact that inclusion of a higher-cost employer affects the premium seen by all group members. In the open market, where participation is voluntary and premium variations based on health risk are unrestricted, lower-risk group members have an incentive to go uninsured or to find lower premiums elsewhere, creating the potential for a premium spiral.

In addition, voluntary purchasing pools often fail to achieve the same advantages in the marketplace as single employers. While the pool typically offers one premium to all members, the insurer may decide to exclude some group members based on risk. The insurer may also require that group members commit to the pool for a minimum period or guarantee that all employees subscribe. These measures protect the insurer from changes in purchasing group membership which can, in turn, affect risk. If purchasing groups assume risk themselves and self-insure, they are potentially subject to the same state regulations as insurers, unlike self-insuring large firms. Given these barriers, voluntary pools have had only limited success in improving access to insurance.

The Commission's recommendation in this area promotes both the concept that small businesses and self-employed people should have access to insurance through purchasing pools and certain steps to improve the ability of purchasing pools to function more like large employers. If successful, purchasing groups can also assume the role now played by large employers by providing information to consumers on the cost and quality of care offered by different plans. In some areas, increased availability of voluntary purchasing groups could result from private-sector actions. Given the existing obstacles to their development, the Commission recommends state or federal support for such groups, whether accomplished through removal of statutory or regulatory barriers or creation of administrative structures.

EXPERIMENTS IN INSURANCE REFORM

The Commission's recommendations for reform of the small-group insurance market are based on the assumption that they will help create a more competitive insurance market. At the same time, the interrelationships between rating policies, market rules, risk adjustment, and purchasing groups need to be better understood, especially where coverage is voluntary. The fact that individuals or groups can opt out of the market altogether means that reforms must balance the goals of broader risk pooling against the implications of consumer exit from the market. As states advance their efforts toward market reform, especially through rating reforms, there will likely be a reshuffling of the composition of the uninsured. In the long run, a steady pattern of market exit by the healthiest within the pool would lead to ever-increasing premiums for those who remain in the pool. Monitoring of ongoing state and private-sector experiments should allow policymakers to assess these effects more accurately.

Many of the elements of insurance reform described above have been included in legislation passed by the states since 1990. According to the Intergovernmental Health Policy Project (IHPP), 44 of 50 states had passed some type of small-group health insurance reform by December 1994 (IHPP 1994a; 1994c). In addition, Hawaii has avoided the need for small-group reforms because of the universal coverage law it enacted in 1974.

Five of these states (Florida, Massachusetts, Minnesota, Oregon, and Washington) have used small-group reforms as a first step toward comprehensive reform, with the explicit objective of guaranteeing universal coverage or access to care. The adoption of comprehensive reform requires a means, such as mandated employer contributions or tax revenues, of subsidizing coverage for some citizens. Many states continue to study the feasibility of additional reforms.

Most states have tried to package their small-group insurance reforms in ways that mitigate some of the potentially undesirable results of these reforms, such as leaving insurers vulnerable to adverse selection. As described above, the National Association of Insurance Commissioners has tried to address these concerns with model laws for small-group insurance reform. NAIC's endorsement of these models followed extensive consultation and negotiation with the insurance industry, whose support facilitated state adoption. A total of 29 states have based their reforms specifically on NAIC's small-group model laws (NAIC 1994).

As state and private experiments proceed, it is important that they be analyzed carefully so that other states can build on lessons learned and so that the Congress can expand its knowledge base for future policymaking. Experts differ in their projection of how reforms will affect premium levels and the size and composition of the uninsured population; state experience over time may provide answers. In addition, policymakers may want to know which of the different approaches that states have taken work better. The rest of this section describes the array of experiments and some of the evaluations that have been made to date.

Market Rules

Many states have moved substantially toward accomplishing the first steps of insurance reform by applying certain rules to the small-group insurance market. As noted, 44 states have passed at least some rules for this market. For most, these include guaranteed renewability (43 of 44 states), guaranteed portability for previously insured people shifting between employers (41 of 44 states), and guaranteed issue of insurance to any small group that applies (38 of 44 states).⁸

In nearly every case, reforms are limited to businesses below some maximum size, usually between 25 and 50 employees.⁹ Many states also set a minimum threshold at two or three employees, thus

⁸ Specific counts of states are based on state profiles and other tabulations by IHPP (1994a; 1994c). An analysis by the Blue Cross Blue Shield Association was also consulted (BCBSA 1993).

⁹ Exceptions include West Virginia, with a threshold of 60 employees, and Kentucky and New Hampshire, with thresholds of 100 employees.

leaving the individual insurance market unaffected. About 15 states have passed some combination of market rules for the individual market, although they tend to be less extensive.

New Hampshire and Washington State are exceptions to the above pattern, applying at least some rules regardless of employer size. ERISA, however, limits the impact of these laws on the large-group market and thus restricts states' ability to set uniform rules for all residents (see Appendix C).

The discontinuity between rules that operate in different markets is partially alleviated by the policies of large firms, which typically adhere to market rules such as guaranteed renewability and guaranteed issue. A majority, however, impose exclusions for preexisting conditions, because they want to avoid paying for services that may have been deferred by newly hired employees who were previously uninsured.¹⁰ They tend not to limit employees' access to insurance by health status, although this may be changing as cost pressures increase. Some may also restrict the right to coverage for employees who initially decline it.

Voluntary private-sector purchasing coalitions seek to match the policies used by large firms, but some have found it necessary to modify them. The Cleveland Council of Smaller Enterprises, for example, applies medical underwriting to its members to avoid the adverse selection spiral. The Employers Health Purchasing Cooperative of Seattle, Washington, requires that employers agree to purchase coverage for a minimum of three years, pay at least 50 percent of employees' premiums, and guarantee that 75 percent of employees will sign up for coverage—requirements aimed at ensuring that low-risk employees participate (GAO 1994).

Most states enacting market rules have done so in the past three years, after NAIC started developing model laws and recommending them to the states. Because of the short time they have been in place, it is premature to observe any effect of these laws on rates of insurance coverage or on premium levels. In addition, their widespread and continuing adoption reduces the number of nonadopting states available to serve as a control group.

A report by IHPP, sponsored by the Commonwealth Fund, evaluates the impact of reforms in 12 states that had enacted them by July 1992 (IHPP 1994c). The report concluded that there is no evidence of major disruptions in these states, but that available data provide little basis for quantifying the impact on coverage rates or premiums. State regulators said that reforms had no important adverse or positive effect on the small-group market, although they had concerns about efforts by some insurers and small businesses to circumvent the rules.

Because state reforms generally apply to the small-group market and because insurance remains voluntary, some gaps in protection remain. Preexisting condition exclusions, for example, may still be

¹⁰ A survey of employers shows that, of firms with 200 or more employees, 59 percent apply preexisting condition limits for conventional insurance coverage for an average of 10 months; 70 percent apply such limits to preferred provider organizations; and 56 percent apply them for point-of-service plans (KPMG Peat Marwick 1994). Federally qualified health maintenance organizations are precluded by the HMO Act from imposing these restrictions.

applied to newly insured people, and portability rights are lost if someone goes more than 30 to 90 days without coverage.¹¹ In addition, many high-risk individuals who are self-employed or unemployed cannot purchase coverage, because most reforms do not apply to the individual market.¹²

Ultimately, premium levels remain the key barrier to coverage for those who are uninsured.¹³ States may guarantee issuance of a policy and guarantee that premiums charged to one group cannot vary substantially from those charged to the next. But most states do not guarantee that the premium level will be low or offer subsidies to employers or employees who cannot afford the premium.

Rating Restrictions

All 44 states that have enacted small-group insurance reforms have included some limit on premium pricing in the form of rating restrictions, modified community rating, or full community rating. About half of these have enacted community rating or modified community rating rules that limit the use of health status and other factors except possibly for age, family size, and geography. Four states have enacted full community rating, although only New York has implemented it. In general, states enacting stronger rating restrictions have a full set of market rules as well. The NAIC model laws have helped states understand the linkage between these different reforms.

Large-group purchasers also typically use community rating, since all employees pay the same rate for the same policy.¹⁴ The premium that participants in the Federal Employees Health Benefits Program (FEHBP) pay for a given health plan, for example, varies only by family size (single versus family). FEHBP even includes retirees (with or without Medicare coverage) in the same risk pool as active workers. The result is that retirees without Medicare are subsidized by the other two groups, mostly by the Medicare-eligible retirees. Active workers are charged slightly more than they would pay in a separate risk pool (CRS 1989).

Some national firms build in geographic variations in premiums that reflect health cost differences in different areas of the nation. By contrast, FEHBP uses national rates, although local markets may exist *de facto* because most health maintenance organizations (HMOs) serve only limited geographic areas and can set a rate based on that area. The absence of geographic adjustments where participation is voluntary can cause complications, as illustrated by New York State's public employees plan, which local governments can join on a voluntary basis. Nearly all that join are located in or near New York

¹¹ These rules are designed to protect both insurers and those people who purchase coverage before they need services.

¹² High-risk pools that make insurance available to these individuals have been created by 27 states, but the coverage is expensive and may impose waiting periods for preexisting conditions.

¹³ According to a 1992 survey that asked uninsured Americans why they lacked coverage, 53 percent said coverage was too expensive, 16 percent said they were not eligible for insurance, 7 percent said insurance was not offered through their employer, and 5 percent said they did not need insurance (CRS 1992).

¹⁴ Although insurers selling to large companies use experience rating, individual employees in a given firm who choose a particular plan usually do not pay different premiums based on experience.

City or Albany; their average costs, according to a 1990 study, exceeded the average for all state employees by about 30 percent. The expectation of similar problems has thus far prevented Pennsylvania from opening up enrollment in its public employees plan to local governments (Schoen and Zacharias 1994).

For voluntary private or public purchasing groups, the insurance incentives described above mean that a firm's decision to join may be influenced by its own assessment of its need for insurance or its ability to reduce premiums through the group. To combat adverse selection problems, some purchasing groups have moved away from community rating. The Seattle purchasing group, for example, uses experience rating for firms of more than 149 employees (GAO 1994). By contrast, the Health Insurance Plan of California (HIPC) uses community rating, although it allows age and geography as rating factors. Those who have studied its brief history attribute the absence of serious selection problems to the existence of market rules such as guaranteed issue and renewability and tight rating restrictions that apply statewide to the small-group market (NHPF 1994).

As described earlier, community rating in the absence of universal coverage can create incentives for certain types of consumers to go without insurance. Opponents assert that community rating will drive more young, healthy people to go without insurance than the number of people who will find insurance newly affordable. Different studies have calculated the number of people who have gained or lost insurance in New York as a result of the state's move to community rating in the small-group and individual markets. The state reported a net drop of about 44,000 persons covered, but noted that the drop is consistent with long-term trends. Milliman and Robertson, a consulting firm commissioned by several small businesses and insurance carriers, estimated that a larger number of those previously covered by individual or small-group policies (about 400,000 people) have let coverage lapse. These divergent estimates continue to be disputed (Schorr and Terman 1994).

Another IHPP/Commonwealth Fund study looked at the impact of community rating in five states (Maine, Massachusetts, New Jersey, New York, and Vermont), all with at least a full year's experience. It concluded that, on balance, community rating has been achieved without major disruptions in health insurance markets. It found no general exodus of health plans from these markets; in fact, the new rules appear to have increased offerings in some cases. Some insurers filed large rate increases in anticipation of the changes but later reduced premiums to remain competitive. It concluded further that, because it does not change the average premium, community rating by itself has had a negligible impact on overall rates of insurance coverage (IHPP 1994b).

A study on community rating by the Alpha Center, sponsored by the Robert Wood Johnson Foundation, gave particular attention to two states (New York and Vermont) and reached conclusions similar to those of the IHPP study. It found that pure community rating is likely to raise premiums for a substantial proportion of the insured population and reduce premiums for relatively few people, but that early experience shows little or no net effect on the number of people insured overall. The study also found minimal exit from the market by insurers; those that did leave had a small market share. Finally, the study concluded that participation in a community-rated system may cause employers to focus on systemwide changes to control costs rather than narrower strategies (Alpha Center 1994).

Risk Adjustment and Reinsurance

Among the 44 states that have enacted insurance reforms, about 30 have incorporated risk-adjustment mechanisms or reinsurance pools. Risk adjustment usually refers to a prospective system where adjusters that predict differences in utilization are built into the system for compensating plans; reinsurance pools differ in that they usually take into account, on a current or retrospective basis, the actual use of services (sometimes only for high-cost cases). About 10 states mandate participation in reinsurance pools, although some exempt Blue Cross Blue Shield (BCBS) plans.¹⁵ The rest have voluntary reinsurance pools, which have attracted few insurers.¹⁶ It is unclear whether the limited participation in the voluntary reinsurance pools reflects merely the pace of implementation or insurers' skepticism about their value in addressing selection concerns.

Only New York has a full prospective risk-adjustment system in place, although it is partially suspended by the courts on the grounds that HMOs are not insurers and thus are not subject to state insurance regulation under ERISA. Minnesota and Washington have research under way to develop such systems. In all three states, the risk-adjustment process is being coupled with implementation of market rules and restrictions on premium variations.

Public and private purchasers or coalitions traditionally have not used any type of risk adjustment or reinsurance.¹⁷ The FEHBP, which has the size and demonstrated need for such a mechanism, has not yet created one (CRS 1989). Some businesses that offer a choice of plans have looked at methods for adjusting the published premiums seen by their employees to reduce adverse selection, but few businesses have implemented a true risk-adjustment or reinsurance mechanism. One business coalition (the Bay Area Business Group on Health) and one public purchasing cooperative (the California HIPC) are beginning to test risk-adjustment systems. The results of these attempts to develop and implement risk-adjustment systems should be quite informative.¹⁸

Purchasing Groups

At least 21 states have passed legislation to create or enable private or state-run purchasing groups. This count, however, includes some widely different initiatives. Some states have passed laws to nurture the growth of voluntary purchasing pools. These laws in turn range from simply eliminating restrictions on private-sector groups joining together to seek coverage to creating state-sponsored,

¹⁵ Some BCBS plans have argued that participation should be voluntary so that plans wishing to carry the risk themselves might avoid the expense of the medical underwriting needed to determine who should be placed in the reinsurance pool.

¹⁶ Connecticut's pool was the sole one to pay out as much \$1 million as of January 1994. Only three other state pools (Florida, Massachusetts, North Carolina) had paid out any claims at all as of that date (American Academy of Actuaries 1994).

¹⁷ Self-funded companies often buy stop-loss reinsurance to protect against unexpected high claims in a given year. This type of reinsurance does not address selection concerns.

¹⁸ See the *Annual Report to Congress 1994* (PPRC 1994) and Appendix B of this report for background on those experiments.

noncompeting alliances with fixed geographic areas and explicit responsibilities for managing insurance markets. Other states are expanding the role of state-funded programs, such as state employee health plans, to serve as purchasing pools (IHPP 1994a; IHPS 1994; NHPF 1994). Finally, some policymakers have proposed to expand the FEHBP as a voluntary purchasing pool for certain uninsured individuals or groups.

Private Purchasing Pools. One private-sector solution to improving insurance availability is for small employers to join together and obtain insurance as a group. Pools may be created by local chambers of commerce, insurers, trade associations, or others. Although there are existing examples of such voluntary pools, such as Cleveland's Council of Smaller Enterprises and Seattle's Employers Health Purchasing Cooperative, their number and role are limited by the way insurers evaluate their insurability, their ability to self-insure, and confusion over their legal and tax status. There has been interest in revising various federal and state regulations and laws to promote both the growth of effective voluntary purchasing groups and their ability to function more like large self-insuring firms.

One key problem is that these pools are not treated like similarly sized firms. Insurers generally review the insurability of each member group separately and may underwrite certain constituent groups or individuals. Although they then establish a single premium for the entire pool, this may differ from that charged to a single large firm with the same number of employees.

In addition, depending on the nature of their members, these pools face confusion over who regulates them and the tax status of their reserves. Laws and regulations affecting their functioning include state insurance regulation, state and federal antitrust enforcement, state "false group" laws, federal tax laws, and ERISA (Committee on Ways and Means 1990). For any particular pool, the relevant regulations are determined by whether or not it self-insures and the nature of the connection between participating groups.

If a purchasing pool offers health benefits to employees of two or more employers, it may find itself subject to both state and federal rules. Most such pools are known as multiple-employer welfare arrangements (MEWAs), a specific form defined in ERISA.¹⁹ MEWAs are generally subject both to state regulation, just as if they were insurance companies, and to federal regulation under ERISA. This status results from the 1983 MEWA amendments to ERISA, which specified that any law of any state that regulates insurance may apply unless inconsistent with other parts of ERISA (i.e., fiduciary responsibilities, reporting, and disclosure requirements). It also reflects an understanding reached between the U.S. Department of Labor and the states.

Pools that seek the advantages of self-insuring, unlike self-insuring employers, are generally still subject to state insurance law. In addition, it is difficult to qualify under federal tax law for the tax-exempt prefunded accounts or trust funds that some self-insured firms use to pay claims. Where a

¹⁹ See Leibowitz et al. (1992) for a description of MEWAs, including some of their failures and regulatory problems.

pool spans more than one geographic area, the Treasury Department has chosen to treat it as an insurance company, thus denying it tax-favored status.

Although removal of certain barriers may be important for continued growth of legitimate groups, others point to examples of fraudulent and failed groups as reason to proceed with such changes cautiously. Virtually all states have so-called false group laws that prohibit associations from forming solely for the purpose of insuring their members. Fourteen states have recently experimented with exemptions to these laws. Because prohibitions have typically existed to avoid creation of groups of low-risk consumers that distort the remaining market pool, new exemptions to allow formation of legitimate pools tend to include certain requirements. These rules, designed to prevent risk selection or risk avoidance by purchasing groups, somewhat reduce the advantage they offer members over purchasing insurance directly from insurers. As states continue to experiment with relaxing their regulation of these groups, the need for such protections may be clearer, as will the role of pools in improving the functioning of the insurance market.

State-Initiated Purchasing Pools. Twelve states have authorized the creation of new entities to organize purchasers. States may either create the pools themselves or invite private groups to create pools that fit the state rules. The state-created Health Insurance Plan of California has enrolled nearly 80,000 people in its first 18 months of operation. Florida's 11 community health purchasing alliances (CHPAs) are state-chartered, private nonprofit organizations. They enrolled about 2,400 people in their first three months. Most other states are just entering an implementation phase.

Purchasing pools are designed under state laws with different structures, and they assume varying degrees of activism in their roles as purchasers. Florida illustrates the passive model. CHPAs are not allowed to negotiate rates with health plans and must accept all willing plans. The role of CHPAs is limited to assisting consumers with information to help them choose. By contrast, California's HIPC has substantial negotiating power and is permitted to exclude plans from the program. Similarly, Kentucky's statewide alliance is granted the power to negotiate aggressively and select health plans based on cost, quality, and access.²⁰ Finally, Iowa illustrates a model where multiple purchasing cooperatives may exist in a given geographic area. This policy, among other things, creates potential risk segmentation among the cooperatives, as well as within them, and could complicate any proposed risk-adjustment process.

It is premature to evaluate the impact of these programs, most of which have not yet begun enrollments. California has been successful in offering employees of small firms rates that industry observers consider competitive. After one year, the HIPC was able to reduce its first-year premiums by an average of 6.3 percent. In fact, a California Blue Cross executive has said, "There is no question in my mind that [the HIPC] has had a huge effect on the pricing [of other insurance]. We have lowered rates twice since the alliance began" (NHPF 1994).

²⁰ Kentucky mandated that state, municipal, and school employees buy coverage through the purchasing pool.

The fact that these purchasing pools are voluntary creates a potential for risk segmentation between them and other existing risk pools. Low-risk groups are more likely to be offered lower premiums in the private market, potentially leaving higher-risk people to enroll through the pools. Policies such as guaranteed issue and renewal and community rating that apply to competing insurers, however, should reduce the likelihood that these entities will experience adverse selection.

Early experience with the California HIPC offers an illustration of this dynamic. California law bars insurers in the small-group market from using industry, occupation, or sex in setting rates, while it does allow some variations based on family structure, geography, age, and health status. As noted above, the HIPC varies rates based on age, geography, and family structure, but not health status. Although the absence of an adjustment for health status could lead to adverse selection, there is no evidence that this has occurred. Although claims experience is not yet available to make an assessment, the HIPC has been attracting more young people and males than expected (NHPPF 1994).²¹

A final set of examples comes from states that are using their state employee health benefit programs as the basis for a purchasing pool for a broader population. Nearly half the states have opened their programs to other public employees. Some do so for all public employee groups, although others are open only to specified groups, such as public education employees. A few states, however, have opened their plans more broadly. Minnesota, Missouri, Vermont, and Washington have permitted certain private-sector groups to join. Whereas Minnesota and Washington have done so as part of their overall health reform strategies, Missouri is admitting only quasi-public and nonprofit agencies that receive state funds. Finally, a few additional states are under legislative mandates to integrate their state employee, Medicaid, and workers' compensation programs (Schoen and Zacharias 1994).

A key issue for these states is whether to merge all new groups along with state employees in a single risk pool. Most have left everyone in a single pool, but Illinois, Minnesota, Nevada, Washington, and Wisconsin have created multiple pools. Because new groups typically enter these pools on a voluntary basis, the opportunity for selection against the original program is substantial. South Dakota ended its five-year trial of voluntary participation after experiencing volatile entry and exit (Schoen and Zacharias 1994). The use of separate pools protects the original participants from paying the cost of adverse selection but limits the gains pooling offers new participants.

As in California, state legislation on purchasing pools has generally been accompanied by most of the other reform elements discussed above. States that are farthest along in designing and implementing purchasing pools have also enacted rules such as guaranteed issue, portability, and restrictions on rating. These states' policymakers seem to think that purchasing pools will be better able to avoid becoming repositories for bad risks if market rules and some form of community rating apply to the broader market that the new pools are designed to serve.

²¹ About 22 percent of employers using the HIPC previously did not provide health insurance to their employees.

A National Purchasing Pool. Some policymakers have proposed creation of a national voluntary purchasing pool. One approach builds on the Federal Employees Health Benefits Program, which has been described as a model for a consumer-choice approach to health reform (Heritage Foundation 1992). FEHBP offers a broad choice of health plans to more than 9 million people across the country. It does so with low administrative costs, but as a more passive purchaser than many of the state pools. As noted above, it pools together active workers and retirees (both with and without Medicare coverage).

For this option to be viable, two issues would need to be addressed. First, several changes would be needed for FEHBP to achieve its potential for being an efficient administrator. These steps, which are relatively easy to resolve, would include new processes for enrolling individuals or small groups, improved management of its choice of plans, and at least some risk adjustment (e.g., for age and sex) of its payments to plans.

The more difficult issue is a fair means to establish prices to be paid by subscribers. Even if participation were mandatory, there would be a question of whether new groups should be offered the same price for coverage as existing participants or whether separate pools are needed. In most scenarios, the risk profiles of different groups are likely to diverge. For example, one analysis showed that inclusion of all non-Medicare persons outside the work force with current federal participants would raise average premiums for the combined pool considerably, especially because the new group would be about four times the size of the current program (CRS 1994).

Under a system of voluntary entry, the price offered to new groups or individuals would influence their decisions about whether to purchase coverage through the pool. In this situation, adverse selection would be expected, potentially leading to much higher premiums for current federal participants. If a separate pool were created to protect current participants, new groups would lose some of the advantages of joining an existing pool. New participants would face higher premiums than under a single pool, but probably lower premiums than for nonpool coverage.

These effects could be mitigated somewhat if other insurance market rules, especially rating restrictions, were in place uniformly across the country. These rules would make it more difficult for insurers to direct high risks into the new pool. Other steps might be to follow the precedent of the California HIPC and allow geographic and age rating for those joining the national pool. These premium differences, however, would conflict with current FEHBP policies.

A final issue is whether a national purchasing pool should compete with local and state pools. Such competition would offer people a broader array of choices, but would create more opportunities for selection bias. One option would be for the federal government to use FEHBP's administrative structure to offer pools in those states or local areas where other pools do not exist. For this approach to work, the new pool should be separate from current federal participants, and these states should be required to adopt other insurance reforms.

IS THERE A FEDERAL ROLE IN SMALL-GROUP INSURANCE REFORM?

Given the variety of experiments under way, what role, if any, should the federal government play? A large majority of states have moved on their own to implement insurance reform for the small-group market, and further activity is expected. In doing so, states appear to agree that reforms should begin with market rules. Market rules, however, only constitute a first step toward solving the problems in the insurance market. Beyond this first step, states are experimenting with different combinations of rating restrictions, risk adjustment or reinsurance, and purchasing pools. The experience thus far suggests that states view community rating or tightly drawn rating restrictions as a prerequisite for enacting risk adjustment or purchasing pools; there are no examples of states enacting risk adjustment or risk sharing without some form of premium restrictions.

Two possible reasons for federal involvement are to provide some uniformity in the small-group market around the country and to allow states to expand reforms beyond the small-group market. Some policymakers may see a federal role in either establishing a minimum set of reforms or requiring a degree of uniformity, for example, the same rules for guaranteed issue or portability or the same thresholds for group size. This could involve enacting some rules at the federal level. No state, for instance, can require that portability applies when someone shifts from a small business to a self-insured employer or when someone moves out of state.

Five states have not yet adopted any substantial small-group insurance reforms, and others have chosen not to adopt the full range of possible reforms. While nearly all have adopted market rules and rating reforms, fewer have addressed risk adjustment or purchasing groups. Furthermore, there is only modest uniformity among the states in the ways these reforms have been enacted. The presence and refinement of the NAIC models, however, have led to similarities across many states. As more is learned, the NAIC is modifying its models, and states may choose to follow suit.

Uniformity might be difficult to achieve, in part because it is not clear which reforms should be standard. In addition, technical issues (e.g., maximum thresholds for defining small groups and the treatment of self-employed or unemployed individuals) will create challenges for policymakers. Furthermore, requiring uniformity may be unpopular with the states and could reduce state flexibility for experimentation. Depending on how requirements are structured, more activist states might be prevented from testing tighter rating restrictions or new ways to structure purchasing pools.

Some states have indicated a desire for relief from certain federal regulations that prevent them from expanding reforms beyond the small-group market or beyond insurance carriers to apply to all health plans, regardless of group size. ERISA preempts state regulation of employer health plans so that state requirements apply only to insurers but not to employers (see Appendix C). As a result, self-insured employers are exempt from state insurance reforms. This is one reason that states have limited reforms to the small-group market, although it is also generally acknowledged that rating and underwriting problems are less serious in the large-group market. While states argue that they are limited from imposing policies such as standardized data collection, large multistate firms argue that

it would be difficult and expensive for them to comply with a variety of state-level policies if federal laws were waived. Data collection may be one area that merits federal standards.

Even if no changes are needed in federal policy, the Commission believes that the information obtained from systematic monitoring and evaluating the effects of these natural experiments will have great value to both state and federal policymakers. The impact of state reforms, separately and in concert with one another, is still not well understood. The magnitude, for example, of market exit by healthy consumers at a statewide level is unknown. In addition, it is difficult to assess the implications of reforms on those not eligible for inclusion in purchasing pools, that is, whether this segmentation leads to increasingly high premiums for nonparticipating groups or individuals. Further, the impact of the voluntary nature of local insurance markets is difficult to test.²² Although several studies have taken a first look at the impact of reforms, these have relied on interviews with state officials and limited data on insurance coverage and costs.

Addressing these research questions involves some challenges. Although some states have specific requirements for evaluating their reforms, baseline data are often lacking. States may have difficulty in collecting needed data because groups and individuals can move out of insured markets into self-insured categories that states cannot monitor. Nevertheless, some researchers have pointed to the availability of employer, employee, and insurer surveys (e.g., the Current Population Survey for insurance coverage) that could be used to monitor changes in a timely manner.

There is an important role for systematic evaluation of these experiments within a single, consistent analytic framework. The limited studies that have been conducted to date suggest potential hypotheses that could be studied more systematically. Researchers, whether sponsored by private foundations, the states, or the federal government, should study the impact of different combinations of reforms in an effort to promote the knowledge base for further improvement of the equity and efficiency of insurance markets.

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HEALTH PLANS' SELECTION, RETENTION, AND PAYMENT OF NETWORK PHYSICIANS

Health plans that contract with provider networks serve somewhere between one-third and one-half of nonelderly Americans. To many physicians and other health providers, this means that health plans are a critical source of employment and income. To consumers who are insured, selecting a health plan increasingly means agreeing to get care from its network of providers.

There are many patients and providers who find this new world acceptable. Some physicians may see a more predictable working environment and more stable income. Consumers may see increased access to a system of care that includes primary care and specialized services. For others, the changes appear to threaten their autonomy. Patients lose their ability to see any provider they want, and practitioners no longer have an unfettered relationship with their patients.

This chapter focuses on relationships between health plans and providers. It reviews what is known about how plans select, retain, and pay the providers in their networks—and how plan-provider relationships are changing and adapting to the changing health care environment. It brings to the discussion new information gathered for the Commission through a survey of managed-care plans.

The chapter also takes a preliminary look at what role, if any, public policy might play with respect to plan-provider relationships. Some would like policymakers to change certain policies that they see as stifling beneficial developments in the marketplace or to add policies that would stimulate faster change. Others look to policymakers to protect patients and providers from adverse effects of market changes. Still others would prefer a policy of watchful waiting, where government keeps its distance but perhaps applies lessons learned from the market to its own programs.

This chapter begins with a description of the Commission-sponsored survey of managed-care plans. It continues with two sections reflecting major elements of managing care: selection and retention of network providers and payment of providers.¹ Each section reviews current knowledge on the subject, derived from research studies, trade magazines, newsletters, and other sources.² Each also presents results of the new survey of managed-care plans. The sections conclude with a brief discussion of key policy issues, drawing on an analysis of state policy initiatives in Appendix D.

¹ In 1992, the Commission identified three elements of managing care: selecting providers, restricting clinical choices, and inducing changes on the part of providers. Payment methods were discussed as one of the ways to induce changes in practice (PPRC 1992).

² Much of the information in the trade literature is anecdotal but was useful in identifying recent developments in the industry and issues that have not yet been studied in the research literature.

A COMMISSION-SPONSORED STUDY OF MANAGED-CARE PLANS AND PHYSICIANS

Because of the degree of uncertainty about these evolving relationships and the rapid pace of change, the Commission contracted with researchers at Mathematica Policy Research (MPR) and the Medical College of Virginia (MCV) to extend the Commission's work in this area.³ First, they were asked to review and synthesize the literature on the arrangements managed-care plans make with physicians (Gold et al. 1994a). Their literature synthesis is reflected in this chapter's review of previous work.

The Commission then asked the MPR/MCV researchers to conduct an extensive telephone survey of managed-care plans, including group-model and staff-model health maintenance organizations (HMOs), network and independent practice association (IPA) HMOs, and preferred provider organizations (PPOs). Responses to the survey were received from 108 plans—78 percent of those drawn for the sample. Respondents included 29 group/staff HMOs, 50 network/IPA HMOs, and 29 PPOs (70 percent response rate or better in each category); these plans enrolled about 33 million individuals in 1994.

The survey was designed to be broadly representative of managed care in U.S. metropolitan areas while emphasizing the larger plans. The sample involved a two-stage selection process. Twenty market areas were chosen, stratified by managed-care penetration and population size. Selection of plans was generally proportional to size within a market, except that a minimum of one plan of each type was sought from each market area. The sampling approach was consistent with the survey's goals of assessing the status of the most successful plans and predicting future trends in managed care. The results thus represent the experience of the typical managed-care plan enrollee better than that of the typical managed-care plan.

The market-based approach allowed the project to address the market dynamics of managed care, the environmental factors that interact with plan features, and the variations within as well as between market areas. Even if plans were owned by national organizations, they were interviewed only about their operations in the market areas from which they were chosen.

The survey instrument included questions on three broad aspects of arrangements between plans and physicians: network design, physician payment, and utilization management and quality improvement. Special attention was given to the variety of products a particular health plan offered and to differences between arrangements in these products. In addition, questions were included to distinguish between two-tiered plans that contract directly with individual physicians or physician groups and three-tiered plans that contract with physicians through an intermediate entity (e.g., a large physician group or physician-hospital organization). The final characteristic of the survey was that responses from a given plan could be provided by up to three people, typically a medical director, an individual responsible for quality assurance, and a financial manager.

³ Principal investigators on this project were Marsha Gold of Mathematica Policy Research and Robert Hurley of the Medical College of Virginia. Other members of the research team included Timothy Lake, Todd Ensor, Lyle Nelson, and Randy Brown, all of MPR, and Robert Berenson, a consultant to the project.

Information in this chapter on current practices of managed-care plans relies heavily on the survey results. More detailed information on survey methods and results is available in a separate report published by the Commission (Gold et al. 1995).⁴

NETWORK DEVELOPMENT: SELECTION AND RETENTION OF PHYSICIANS

The development of a network of physicians is one element health plans may use to manage the care their enrollees receive. By making sure their networks are made up of the best possible physicians, however defined, and limiting consumers' access to nonnetwork physicians, plans believe they can ensure that care is delivered in a high-quality, cost-effective manner. The plans view decisions about their networks as among their most important. Respondents to the MPR/MCV survey rated physician selection and retention criteria as "very important" to plan success more often (83 percent) than eight other plan features about which they were asked.

This section considers three aspects of plan network development. First, it looks at how plans select physicians, including both the specific credentials reviewed and the extent to which claims or other cost and utilization data are consulted. Second, it looks at how plans orient the new physicians they select. Third, it discusses decisions plans make about retaining physicians who are already part of their networks. The section concludes with a brief discussion of related policy issues.

Selection of Physicians

In general, the literature tells us little about the strategies used to develop networks of physicians. Although plans may talk about their intention to seek "high-quality" physicians with "cost-effective" practice patterns for their networks, little is known about how they achieve this objective or whether it is more than rhetoric.

According to surveys by the Health Insurance Association of America, some commercial insurers initially develop large networks covering a broad geographic area and then gradually reduce the number of network physicians as they become able to identify and remove high-cost providers (Hoy et al. 1991). This strategy is especially common for insurers that have relationships with many providers in fee-for-service settings. An alternative strategy would be to choose providers carefully, based on available data and reputations, at the inception of a network.

In responses to the MPR/MCV survey, plans appeared to emphasize initial selection over later decisions on who to retain. A substantial majority (71 percent) of surveyed plans said that "careful selection" best describes their strategy of network creation—more so than "later pruning" of the network or selection of "as broad a network as feasible" (Table 10-1). These responses did not vary substantially by plan type, although PPOs were more likely to emphasize a preference for selecting a

⁴ For the most part, specific citations are not made to the literature synthesis or the survey research report (Gold et al. 1994; 1995). Rather, the original literature reviewed in the synthesis is cited directly. In some cases, direct citation is made to specific conclusions by the MPR/MCV researchers.

broad network. At the same time, roughly equal numbers of surveyed plans reported a trend in attitude over the past three years toward either tightening (38 percent) or widening (43 percent) their networks (Table 10-2). Although group/staff HMOs are somewhat more likely to report a trend toward widening their networks and PPOs are somewhat less so, the differences by plan type are not great.

Systematic information on the selectivity of managed-care plans in developing networks is not widely available. In a recent press account, the responses of several plans about how many of their applicants were excluded by the credentialing process ranged from 1 percent to 10 percent (Terry 1994c). These responses appear to reflect specific exclusions based on malpractice history or incomplete applications, not the plans' overall selectivity in recruitment.

In making selection decisions, most plans review basic credentials such as whether a physician is licensed. Plans may also review more qualitative information, such as the physicians' practice style, or may visit their offices. This type of credentialing, while important for avoiding incompetent physicians, is often seen as a necessary but not sufficient foundation for developing a good network. Many plans, sometimes at the behest of employers, have thus tried to develop networks based on actual experience of individual providers.

Table 10-1. Plan Description of Network Selection Philosophy, by Plan Type, 1994
(percentage of responding plans)

Network Selection Philosophy	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Careful Selection	71	79	74	59
Prune Later	18	17	16	21
As Broad as Feasible	11	3	10	21
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

Table 10-2. Plan Attitude about Changing Network Size over Past Three Years, by Plan Type, 1994
(percentage of responding plans)

Attitude about Changing Network Size	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Tighten Network	38	31	44	34
Widen Network	43	54	42	34
Stay the Same	19	15	14	31
Plans Responding (number)	105	26	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

Most states require that HMOs, but not PPOs, have a credentialing process for selecting physicians, although they do not specify what credentials must be included (Kopit and Lutes 1993). Those HMOs that seek accreditation by the National Committee for Quality Assurance (NCQA) must have a credentialing process that includes verification of such items as licensure, malpractice history, hospital privileges, and Drug Enforcement Administration certification (O’Kane 1993).⁵

The MPR/MCV survey generally confirms that most plans review these basic credentials, including licensure, past history, and hospital privileges, when contracting with network physicians (Table 10-3). A majority of plans also take steps to visit the physician’s office, review the facilities against standards, screen care through a medical records review, or otherwise review qualitative information on practice style.

Table 10-3. Elements Reviewed or Verified Before Contracting With Individual Physicians, by Plan Type, 1994 (percentage of responding plans)

Element Reviewed or Verified	All Plans	Group/Staff HMOs*	Network/IPA HMOs	PPOs
Application Form Showing Credentials and Affiliations	100	100	100	100
National Practitioner Data Bank	84	100	94	55
Valid License	100	100	100	100
Substance Abuse Problems from Source other than National Practitioner Data Bank	87	80	90	89
Physician Office Visit	72	75	94	35
Medical Records	52	46	71	28
Physician’s Office Facility	68	79	90	24
Qualitative Information on Physician Practice Style	63	54	73	55
Organization’s Indemnity Claims Database	30	13	27	50
State Hospital Discharge Data	29	24	27	36
Other Databases	43	36	51	36
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

* Group/staff models are much more likely to hire physicians directly or through a group. The hiring process involves different needs than other types of contracting; these differences are important to take into account in interpreting the results.

NOTE: Includes contracts made both directly with individual physicians and indirectly through an intermediate entity. Excludes missing values and those indicating an item was not applicable. Of 108 responding plans, 100 or more responded to all items except one on claims database, to which 94 responded.

⁵ An increasingly important source of information is the National Practitioner Data Bank (NPDB), which can be consulted by an HMO. A PPO, however, is not permitted to query the NPDB because it lacks the status of a “health care entity” (Brasher and Sweeris 1991). But it can request that physicians release their NPDB records.

One specific credential that has generated controversy is board certification. About two-thirds of all physicians are board-certified, meaning they have completed a residency in the field and have passed a qualifying exam. Health plans see board certification as an easy approach to rating doctors, one that purchasers can easily understand. But the absence of board certification may result from factors unrelated to the quality of care a physician provides. Physicians who entered practice before certification was widespread might never have gone through the process and are no longer eligible. Consequently, many doctors could unfairly become unemployable if board certification becomes a standard requirement for participation in managed-care networks. Some physician groups would prefer that board certification be just one of a set of credentialing standards (McIlrath 1994).

Board certification or eligibility for certification was required by a majority of plans (57 percent) in the survey, including most group/staff model HMOs and a smaller proportion of other types of plans. Those plans that did not make this credential a requirement generally reported that they expected most candidates to be board-certified or board-eligible.

Databases on individual physicians' performance are generally unavailable for physicians who have not been in a plan's network, with the possible exception of those kept by insurers that pay providers on a fee-for-service basis and have a large market share. The data that are available provide little information on actual outcomes of care.⁶ There is some evidence that, for plans that use them, claims databases are seen as a larger factor in selecting physicians than credentials such as licensure or malpractice history (Terry 1994c). But, although approaches such as physician profiling have the potential for wider use as more central data systems are created, they are probably used more today to review the work of physicians already in a plan's network.

The MPR/MCV survey supports the conclusion that quantitative data play a limited role in selection. Only a minority (37 percent) of surveyed plans said they review available claims databases, including either the organization's indemnity claims, state hospital discharge data, or both (Table 10-3). In response to a followup question, a majority (61 percent) reported that cost and utilization data play only a small role in selection decisions. This limited role may reflect either a lack of interest in using these criteria or simply the constraints of available data.

In the mid-1980s, PPOs were generally considered less selective than HMOs. According to one study, PPOs selected physicians from affiliated hospital staffs and existing networks (e.g., Blue Cross Blue Shield plans), and "cost-effectiveness appears virtually irrelevant to the physician selection process." PPOs showed signs of changing, however, since about half were developing physician profiling systems; less clear was whether these systems would be used to make decisions about selecting or retaining physicians (de Lissovoy et al. 1987).

In the survey results, PPOs responded more often than HMOs that they reviewed claims data before contracting with individual physicians, perhaps because they were more likely to have claims data in house (Table 10-3). They were also more likely than HMOs to report that cost and utilization have a moderate or large effect on selection (50 percent of PPOs versus 35 percent of HMOs). These

⁶ This approach is easier to implement for hospitals, at least in those states where uniform discharge abstract data are available. Even these data, however, may not be sufficient to make judgments about outcomes.

responses suggest that PPOs no longer consider cost effectiveness irrelevant. PPOs were considerably less likely than HMOs to visit a physician's office, review medical records, or review the office facility.

Some health plans may consider additional criteria in developing their networks. Some maintain that enrolling a substantial portion of a physician's practice increases the attachment that he or she has to the plan. According to the survey, the average share of a network physician's practice that plan enrollees represent is larger than it was three years ago, especially for network/IPA HMOs and PPOs. PPOs have the lowest practice penetration. In only 18 percent of PPOs, plan enrollees account for more than 20 percent of their primary care physicians' practices. By contrast, more than half of the network/IPA HMOs (55 percent) and the group/staff HMOs (78 percent) have achieved this level of practice penetration.

Plans also increasingly depend on medical groups, more than individual physicians, as the foundation for their networks. Renting or purchasing a network may be easier than building one from the ground up. According to the survey, there appears to have been a net increase for all types of plans in the average percentage of care delivered by large multispecialty groups (16 or more physicians), although the trend data are somewhat inconsistent. It is not clear whether this is a change in selection strategies on the part of plans or a general move toward physician participation in networks. Surveyed plans in California, where groups are more prominent, were more likely to require that physicians be affiliated with certain groups and were more likely to contract with groups than with individual physicians.

Orientation of Physicians

Some health plans emphasize that their corporate culture is an important element in managing care. Once physicians are selected for a network, plans may seek to socialize them into their systems. At some plans, this process goes well beyond explaining plan administrative procedures to considering approaches to care delivery. Unfortunately, neither the specific steps plans take nor their degree of reliance on orientation have been documented in the literature.

The MPR/MCV survey found that physician orientation is common in managed-care plans. Most distribute written materials, hold orientation meetings for medical staff, and use peer support or visits. Orientation is most extensive in group-model and staff-model HMOs, which devote more time, involve more top management, and are more likely to go beyond administrative procedures. Of group/staff HMOs, 69 percent met four specific criteria for orientation, compared with 22 percent of network/IPA HMOs and 3 percent of PPOs.

Retention of Physicians

Plan decisions about which physicians to retain in their networks are also a key element of managing care, especially for plans that use a "broad selection and pruning" strategy for network development. In the past, some observed that plans had not been effective at (or lacked the will for) identifying and removing incompetent physicians (Berenson 1991). So-called deselection of physicians is becoming more important, in part because some plans are reducing the size of their networks.

Physicians may leave networks for two types of reasons. Some leave at their own initiation, either for reasons unrelated to their plan affiliation (e.g., because they move from the area) or because of dissatisfaction with some aspect of the plan. Others are asked by the plan to leave. Reasons for these decisions could range from specific concerns such as patient complaints to downsizing caused by declining plan enrollments.

Anecdotal evidence of physician deselection has received considerable publicity over the past year or two (Kent 1994; Terry 1994d; Johnsson and Mitka 1994; Johnsson 1994a; McCormick 1994). Reports range from one insurer's decision to drop more than 100 physicians from its network to another's exclusion from its PPO of nearly one-third of the physicians previously participating in its fee-for-service plan. In another case, an insurer dropped 600 specialists from its HMO network, including most of its African American physicians.

Little systematic information exists on plans' approaches to deselection. One plan's approach, which has received substantial publicity, may typify what others are doing. The Blue Cross Blue Shield plan based in Washington, D.C., uses a profiling system called Pro/File that compares resource consumption by each practice with that of other doctors in the same specialty and the same region. Pro/File considers a broad array of utilization measures (e.g., numbers of laboratory tests and office visits and what they call long-range utilization), but not patient outcomes. An adjustment for case mix is implemented by comparing groups of patients with similar diseases, ages, and treatments. Critics claim that small sample size is a significant problem and that Pro/File judges only resource consumption and not quality of care. The Medical Society of the District of Columbia sued the plan, contending that dismissals were arbitrary and that, for example, 45 of 52 oncologists were chosen solely because of their university affiliation, not their performance (Iglehart 1994; Terry 1994d).

In another case, a Houston plan apparently based its deselection decisions on comparisons of physicians' actual costs to projected costs, a standard profiling technique, dropping those with the highest cost per patient based on one quarter's data. The number of physicians dropped was supposedly based on an assessment of how many the plan needed in a given area. The Texas Medical Association sued the plan, citing methodological problems (in one case, a physician was supposedly dropped on data from just two patients) as well as more fundamental objections to the use of economic credentialing (a term often used to characterize plans' exclusion of physicians they consider too expensive). The plan responded that, in addition to economic criteria, it considered quality indicators such as mammography and immunization rates, board certification, patient satisfaction, and the number of plan members in a practice (Terry 1994d).

According to the MPR/MCV survey, almost all plans (93 percent) have a formal process for recredentialing, meaning that they review the qualifications of all network physicians, most often on a biannual basis. Some HMOs have instituted recredentialing recently, in response to the need for NCQA accreditation. But PPOs also have added these standards, perhaps in response to purchaser requirements or the need to gain accreditation.

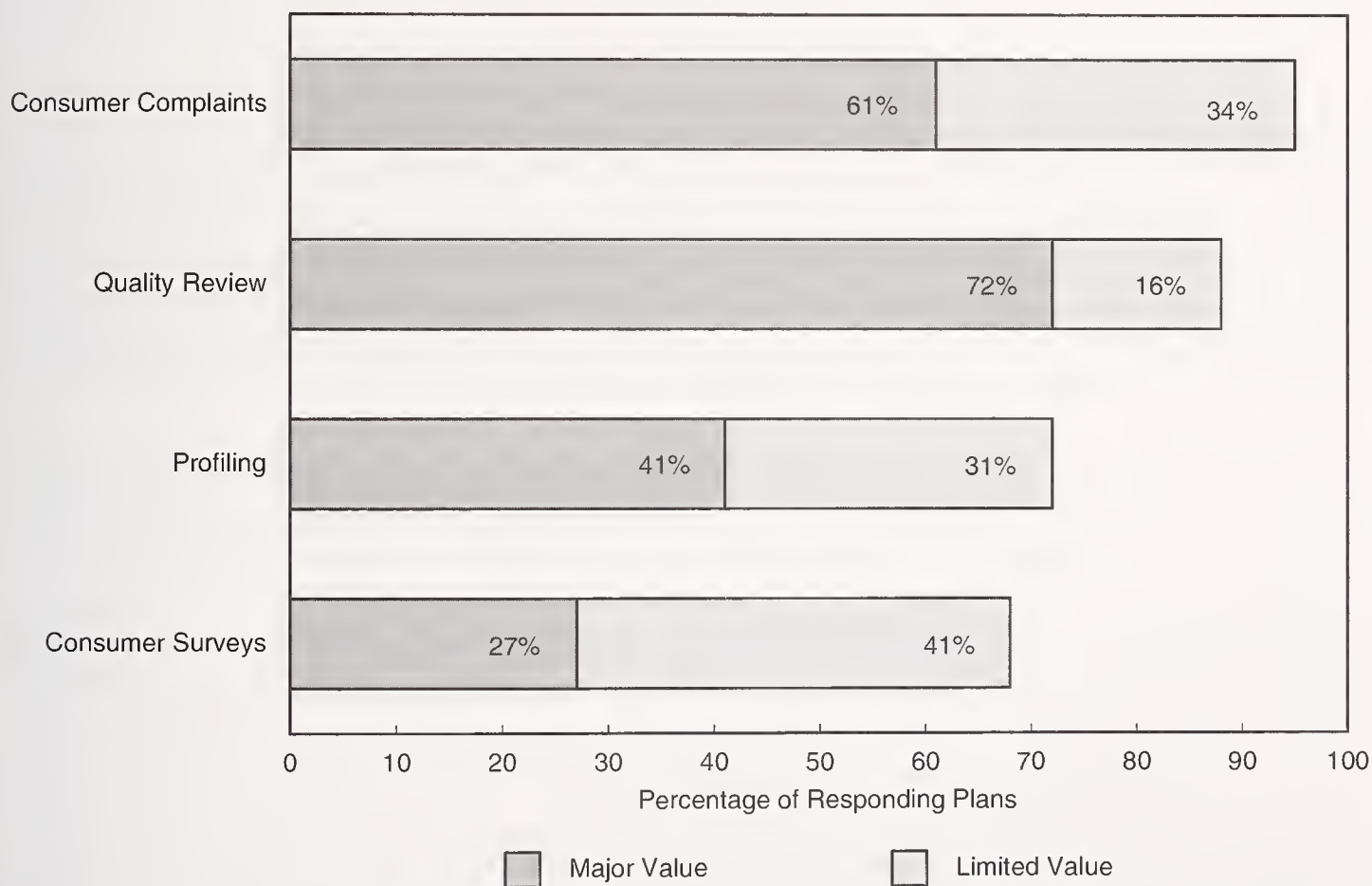
The survey revealed relatively low levels of physician turnover in plan networks, on average about 4 percent in the preceding year (median of 3 percent). Nearly all reported that these rates were typical. The survey did not ask plans to distinguish the relative importance of physician-initiated and plan-initiated decisions, but it did

ask them to list the main reasons cited for each category. Many plans mentioned physicians leaving the service area or leaving practice as important reasons for physician-initiated turnover. Among plan-initiated departures, quality-of-care issues were most frequently cited (over twice as often as utilization and cost patterns).

In a separate Commission survey of physicians, about 9 percent of physicians reported that at least one affiliation between their practice and an insurance plan was discontinued in the previous year. In about half the cases, these plans represented 5 percent or less of practice revenue (Project HOPE/The Gallup Organization 1995).⁷

The MPR/MCV survey showed that consumer satisfaction surveys, profiling information, quality review information, and patient complaints each played some role in retention decisions. In particular, quality review and consumer complaints both were of major value to a majority of plans, while profiling and consumer surveys played a more limited role (Figure 10-1).

Figure 10-1. Sources of Information Used in Making Physician Renewal Decisions, 1994



SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

⁷ This survey of 2,070 physicians was completed for the Commission in 1994 by Project HOPE and the Gallup Organization.

Policy Issues

The continued expansion of managed care concerns some providers and consumers. They worry about loss of autonomy as the use of restricted networks becomes more common. Some physicians are troubled about being locked out of health plan networks and losing large portions of their established patient base. They also want to protect their right to due process and fair criteria in selection and retention decisions. Consumers want the freedom to choose not just their own health plan but also their own provider without large copayments for their choice. On the other hand, consumers may also want the gains in efficiency or lower premiums that a network might represent.

The American Medical Association, in testimony before the Commission, expressed the fear that market trends would “diminish patient choice of plan and physician and threaten physicians’ ability to be effective advocates for their patients.” It cites “arbitrary ‘deselection’ by PPOs and HMOs that, with essentially no due process, ... deprives patients of affordable access to their physicians, whose practices are devastated” (Todd 1994). It has translated these concerns into advocacy of a federal Patient Protection Act, which includes provider due process and consumer protection provisions.

In several communities, physicians or consumers have asked the courts to resolve these issues, an approach that has generally satisfied neither side. Some lawsuits have been dismissed, while others are still in court. In one case, a California appellate court ruled that physicians and dentists who contract with managed-care plans have a basic right to due process if they are dropped from a network. It also supported the health plan by ruling that practitioners must exhaust all available internal appeals before going to court and may not sue for damages (Johnsson 1994b). In general, however, the courts have not yet fully resolved what role they may have in judging plans’ rights to keep or dismiss network physicians.

In many states, physicians and consumers have sought legislative remedies. Some states have enacted so-called any willing provider, due process, or freedom of choice laws, and many others continue to consider them. Appendix D describes in more detail actions taken by the states.

It remains uncertain whether policymaking is being driven more by physician and consumer perceptions or by actual plan practices. Both are important, but the appropriate remedies may be different. The findings of the Commission-sponsored managed-care survey offer some insight into plan practices. Plans do not appear to drop physicians at the high rates that some anecdotal reports might imply. Plans do, however, appear to be making selection decisions more carefully, with an increased emphasis on credentialing and stronger standards over the past three years. Gold and her colleagues concluded, based on the survey results, that managed-care plans appear to want the ability to use selection to build efficient networks and to exclude the potentially small group of physicians who fail to meet their standards. They do not yet appear to place much weight on quantitative information in selection and retention decisions. Rather, they use more qualitative information on the nature of a provider’s practice to develop effective networks (Gold et al. 1995).

PAYMENT OF PHYSICIANS BY HEALTH PLANS

Provider payment is another key element health plans use to manage care. Plans use payment to create incentives that might induce providers to practice medicine in a cost-effective manner. In the MPR/MCV survey, 62 percent of responding plans rated physician payment methods as “very important” to plan success—less often than selection and retention or utilization review, but ahead of six other choices.

Health plans use various combinations of fee for service, capitation, and salary to provide basic compensation to physicians. Each of these compensation methods creates different incentives. Under fee-for-service payment, the physician is paid for each visit or procedure, although there may be some bundling, for example, combining postoperative visits with a surgical procedure. Thus the more services physicians deliver, the more they are paid. Under capitation, payment is based on the number of patients physicians are responsible for in a given month or year, whether or not any services are delivered during that period. Capitation thus creates an incentive to minimize the number of services delivered. Under some capitation arrangements, payments for some or all referral services may be included in the capitation amount, thus placing physicians at financial risk for requesting consultations. Salary compensates physicians on the basis of time and by itself creates no incentive to minimize or maximize service volume (Bodenheimer and Grumbach 1994).

Under any of these basic compensation arrangements, health plans may try to modify incentives with risk-sharing arrangements such as bonuses or withholds. One common arrangement is for the HMO to withhold a portion of the payment to the primary care physician until the end of the year. Actual costs for patients’ specialty referrals and inpatient care are compared with the plan’s allocation for these services. The allocation could be based on patient panels for the entire plan, a subset of physicians, or an individual physician. The physician then receives the withhold, or a portion of it, if there is a surplus in the allocation and thus shares the risk for utilization with the plan and his or her colleagues.

Bonuses, which differ from withhold arrangements, are more often used for salaried physicians. HMOs may base bonuses on the performance of the plan as a whole or on a comparison of actual medical costs with projections. They may also take into account evaluations of a physician’s productivity and management of patient care. Some plans are basing bonuses on factors other than utilization or costs, including quality of care and patient satisfaction. Bonuses may be preferred by physicians over withholds because of the message they send. According to one consultant, “Withholds are like telling primary care doctors that they are starting out guilty. If you use the carrot approach, though, you get quality and satisfaction—and the loyalty of physicians” (Roberts 1995).

Either bonuses or withholds can change the incentives faced by the physician. Salaried physicians who receive a bonus for their patients’ lower costs, for example, acquire an incentive to minimize services that they lacked previously; if they get a bonus for number of patients seen, they may have an incentive to spend less time per patient.

The rest of this section begins with a description of the differences in plans’ approaches to paying their primary care physicians and their specialists. It then describes the ways that bonuses and

withholds are used to supplement these basic approaches to compensation. That topic is followed with a discussion of the specific factors plans use to adjust payments, including those other than costs and utilization. The section then describes some of the fee-for-service approaches that managed-care plans use. Finally, the section concludes with a brief discussion of public policy considerations.

Basic Payment Methods for Primary Care Physicians

Although salary and fee-for-service payment create very different incentives, neither puts the primary care physician at risk for the overall cost of a patient's care. The addition of bonuses or withholds can put him or her at partial risk. But only full capitation puts the physician completely at risk. The simplest form of capitation puts primary care physicians at risk for all the care they provide. Variants on this approach put them at risk for certain portions of patient care that they may order—specialty care, diagnostic tests, or inpatient care.

The MPR/MCV literature synthesis emphasizes that, in reviewing payment mechanisms, it is critical to maintain a distinction between two-tiered and three-tiered health plans (Gold et al. 1994). Three-tiered plans differ in that an intermediate entity such as a physician group operates between the health plan and the individual providers. In three-tiered plans, the incentives for physicians are determined more by the arrangements set by the middle tier (e.g., a physician group) than by those between the health plans and the middle tier. In some situations, capitation may be used by the plan to compensate the physician group, but the group may rely on fee-for-service payment or salary for the individual physicians.

The most detailed study of payment mechanisms in the literature surveyed 260 HMOs in 1988 (Hillman et al. 1992). Individual primary care physicians were then paid by salary in 23 percent of all plans, by capitation in 35 percent, and by fee for service in 36 percent. A 1992 survey by the Group Health Association of America (which specifically asked about payment of individual physicians) found that 14 percent of HMOs paid primary care physicians mostly by salary, 44 percent by capitation, and 42 percent by fee for service (GHAA 1993). Salary was the dominant method for staff-model HMOs, while group-model plans were more split among the three methods. Network plans used capitation in about two-thirds of the cases. IPAs almost never paid by salary and were about equally split between capitation and fee for service. PPOs nearly always pay on a fee-for-service basis, either using a fee schedule or discounted charges.

Based on the MPR/MCV survey, the basic picture on the use of fee for service, capitation, and salary to pay primary care physicians appears mostly unchanged from previous studies (Table 10-4).⁸ Group-model and staff-model HMOs used salary most often (62 percent) and almost never paid on a fee-for-service basis, whereas most network and IPA HMOs used either capitation (57 percent) or fee-for-service payment (37 percent). PPOs almost exclusively used fee for service.

⁸ Trends are hard to identify because of the variation in responses due to question wording or sampling procedures. The MPR/MCV sample, for instance, favors those plans that most enrollees are in.

Table 10-4. Predominant Payment Method Used for Individual Primary Care Physicians, by Plan Type, 1994 (percentage of responding plans)

Payment Method	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Fee For Service	43	3	37	93
With withholding or bonuses	12	0	24	3
Without withholding or bonuses	31	3	12	90
Capitation	37	34	57	7
With withholding or bonuses	29	24	44	7
Without withholding or bonuses	8	10	12	0
Salary	19	62	6	0
With withholding or bonuses	11	34	4	0
Without withholding or bonuses	8	28	2	0
Plans Responding (number)	107	29	49	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

Basic Payment Methods for Specialists

Specialists are far more likely than primary care physicians to be paid on a fee-for-service basis, although the literature provides less information on payment of specialists. Use of capitation for paying specialists appears to be growing, however. A 1994 article in *Medical Economics* claims that various factors, especially the push for cost containment, have “propelled specialty capitation across the nation” (Terry 1994b).

Specialists appear to be gradually moving from total rejection of capitation to a degree of acceptance. They are being advised regularly on how it can help them, as shown by a recent article in the *American Medical News* entitled, “You Can Learn to Capitate Without Losing Your Head” (Borzo 1994). Under capitation, specialists see rewards for their efficiency, and they may even view it as a reduction of risk since it guarantees a level of income in advance. One California cardiologist noted that under capitation he has more autonomy and can avoid some of the utilization-review bureaucracy (Terry 1994b).

The trend in specialty capitation goes well beyond the more common capitation of large multispecialty groups or carve-outs for areas such as mental health or ophthalmology to capitation of independent specialists. Although systematic information has been lacking, reports suggest that certain specialties such as radiology are more likely than others to be capitated. Plans that capitate radiologists hope their radiologists will question the referring physician about the need for a particular test or the possibility of substituting a less expensive test (Terry 1994b).

Problems exist for plans choosing to capitate specialists, however. They often find that they lack the data to determine an appropriate capitation rate. One California IPA, created from the merger of four smaller IPAs, tried to capitate its ophthalmologists and dermatologists but could do so only after collecting a year's worth of data.

The Commission-sponsored survey, one of the first to explore plan payment of specialists systematically, confirms the significant use of capitation. Although fee for service was still the predominant method of paying individual specialists for 70 percent of surveyed plans, 18 percent of plans said capitation was their main method, and 11 percent said salary (Table 10-5). Group/staff HMOs were evenly split among the three methods, whereas fee for service was universally reported as the predominant method for PPOs. It is significant that nearly one in four network and IPA HMOs reported using capitation or salary. If fee-for-service payment with withholds or bonuses is included, more than half of network/IPA plans and three-fourths of group/staff HMOs reported using some method for sharing risk with specialists.⁹

These tabulations may understate the growing use of capitation for specialists. Whereas 18 percent of surveyed plans say capitation is their predominant method, 42 percent say it is used for individual specialties (Table 10-6). In the latter case, plans may be capitating groups of physicians. Cardiology and mental health are the specialties most often cited. Plans that capitate individual specialties generally report that this use is growing (79 percent of plans).

Table 10-5. Predominant Payment Method Used for Individual Specialists, by Plan Type, 1994 (percentage of responding plans)

Payment Method	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Fee For Service	70	31	78	100
With withholding or bonuses	19	7	35	3
Without withholding or bonuses	52	24	43	97
Capitation	18	31	20	0
With withholding or bonuses	7	7	12	0
Without withholding or bonuses	10	24	8	0
Salary	11	38	2	0
With withholding or bonuses	6	21	0	0
Without withholding or bonuses	6	17	2	0
Plans Responding (number)	107	29	49	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

⁹ If pure salary is excluded from this calculation, over half of both HMO categories still used risk sharing for specialists.

Table 10-6. Use of Selected Compensation Methods for Specialist Services, by Plan Type, 1994 (percentage of responding plans)

Compensation Method	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Capitation for Individual Specialties	42	69	47	7
Pooled Capitation Across Specialties	18	24	22	3
Risk Sharing Based on Withholds or Bonuses	32	17	53	10
Competitive Bidding	28	31	33	17
Plans Responding (number)	107	29	49	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: The sum of the percentages may be greater than 100 percent, because plans may use multiple methods.

Risk-Sharing Arrangements

Risk sharing plays a major role for managed-care plans in conjunction with the fee-for-service, capitation, or salary compensation arrangements they make with physicians. Whether structured as withholds or bonuses, risk sharing is an important tool for plans that want physicians' incentives aligned with their own.

Among the issues in risk sharing are the range of services for which primary care physicians are at risk and the number of physicians grouped together for risk-sharing purposes. Narrowly structured risk sharing may place the physician at risk for a set of ancillary services (e.g., X-ray and laboratory tests) and some specialty referrals (e.g., radiology). Some plans might add a fuller range of specialty referrals and approved emergency-room visits (at least within some reasonable distance). Increasingly, however, plans (at least in California markets) are writing full physician risk contracts where a group of primary care physicians is at risk for all services, including inpatient hospital services, incurred by their panel of patients (Terry 1994a).

Risk-sharing arrangements are common. One study, published in 1987, found that about two-thirds of contractual arrangements between HMOs and primary care physicians—more commonly for those using fee-for-service payment—included a withhold provision. The typical withhold was between 11 percent and 20 percent of the payment amount (Hillman 1987). A later study showed that, among all withhold arrangements, 15 percent defined the risk pool as the individual physician, 34 percent defined it as a subset of physicians (e.g., a medical group), and 40 percent defined it as all participating primary care physicians (Hillman et al. 1992).

The MPR/MCV survey confirms that risk-sharing arrangements are common for HMOs, although not for PPOs (Tables 10-4 and 10-5). Network/IPA HMOs used withholds or bonuses as a predominant method most often; 72 percent of plans used it for primary care physicians, and 47 percent used it for

specialists. Use was somewhat less frequent for group/staff HMOs and almost nonexistent for PPOs. These rates appear stable; half or more of the plans in both HMO categories had not changed their level of risk sharing with primary care physicians or specialists over the past three years. Among those that changed, many more increased it than lowered it. There was no change in risk sharing for PPOs in that same time.

The survey also asked how much an individual primary care physician's income can vary each year as a result of the financial incentives used in plans. The responses suggested that maximum income fluctuation was reasonably small, generally 20 percent or less, although 46 percent of network/IPAs exceeded that level of income variation (Table 10-7). These results could be misleading depending on how plans responded about capitation arrangements for services beyond what physicians themselves provide (e.g., specialty consultations). The survey, however, did not ask specifically about these arrangements.

The Commission's physician survey yields similar results about the size of financial incentives. Capitated physicians reported that the withholds used by the plans they affiliated with averaged about 14 percent, similar to the average of 12 percent income variation reported by plans. Asked about the subjective level of financial risk they face, physicians tended to rate it as moderate (33 percent), limited (29 percent), or very limited (23 percent) (Project HOPE/The Gallup Organization 1995).

Table 10-7. Variation in an Individual Primary Care Physician's Income Due to Plan Financial Incentives, by Plan Type, 1994

Maximum Percentage Variation	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Mean	12	8	20	3
Median	7	8	15	0
Distribution (percentage of responding plans)				
0 Percent	38	33	13	83
1 to 10 Percent	15	46	28	5
11 to 20 Percent	22	17	38	8
21 to 25 Percent	17	8	33	0
26 to 30 Percent	1	0	0	4
Greater than 30 Percent	7	4	13	0
Plans Responding (number)	87	24	39	24

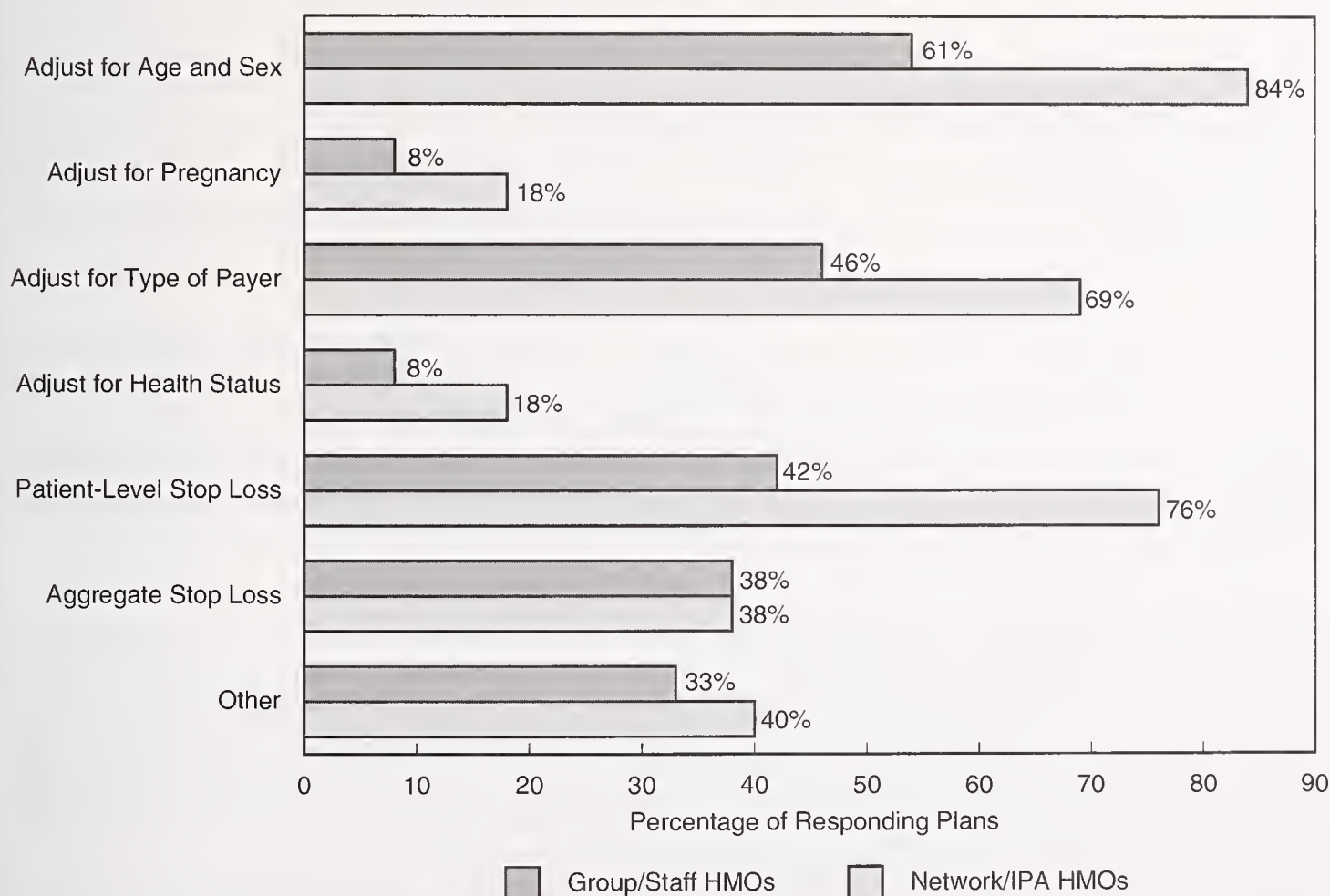
SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: Excludes 17 plans that said they did not know and 4 that said this question was not applicable. The question read "By approximately what maximum percentage may an individual primary care physician's annual income vary each year as a result of the financial incentives your plan uses?"

Physicians have expressed serious concerns about the adequacy and accuracy of risk sharing or capitation methods. Their concern is that they will not be fairly compensated if their patients are higher risk and need more services than average, and many believe their patients do now or will in the future fit this description. Physician groups, especially those capitated for services beyond those they deliver themselves, are regularly advised to acquire reinsurance or stop-loss coverage, which may be available through their plan (Terry 1994a).

Two-thirds of the group/staff HMOs that reported using capitation in the MPR/MCV survey attempted to account for risk by adjusting for age and sex, pregnancy, type of payer, or health status. Nearly half used some type of stop-loss system, while about one-third used neither stop loss nor risk adjusters. Among network/IPAs, nearly all made adjustments to the capitation rates, and about three-fourths used a stop loss. While age and sex adjustments were common, fewer than 20 percent used health status adjusters (Figure 10-2).

Figure 10-2. Percentage of HMOs Using Capitation that Account for Risk in Various Ways, by Plan Type, 1994



SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

Adjusting Compensation for Other Factors

Under traditional fee-for-service payment, plans pay physicians based solely on the services they perform. Bonus and withhold arrangements allow plans to take into account the overall service use generated by a physician's patients. But some health plans are experimenting with compensation methods that adjust for factors such as patient satisfaction, clinical quality, or administrative compliance. Past surveys indicated that up to one-fourth of plans made use of such factors in provider payment.

Incentives linked to quality or satisfaction indicators are viewed as important marketing tools to demonstrate that plans are responsive to their purchasers. Some plans also believe that these incentives will help prepare plans for broader use of performance reports by purchasers and consumers in the future. Some are even linking their bonuses explicitly to certain performance indicators drawn from the Health Plan Employer Data and Information Set, better known as HEDIS (see Chapter 16). Plans acknowledge it is too early to assess the effectiveness of these quality bonus systems (Roberts 1995).

One of the earliest plans to use quality incentives was U.S. Healthcare, which began doing so in the mid-1980s. The plan pays primary care physicians a base capitation amount that is adjusted for the age and sex of their patients. That capitation is further adjusted by a quality factor that takes into account three components: quality review, comprehensive care, and utilization. The quality review component is based on factors such as member surveys, medical record reviews, and transfer rates from the physician's practice. The comprehensive care component considers whether physicians serve large numbers of plan members or offer extended office hours (Schlackman 1993).

Another plan that recently announced its intention to start using quality goals in its compensation methods is Health Partners, a Minnesota-based HMO. For 450 staff physicians, salary increases will be contingent on overall plan performance—as opposed to individual provider performance—in the areas of customer service, medical outcomes, member satisfaction, and financial performance (Mlawsky 1994). Performance will be measured against plan goals; salaries can only be increased, not decreased.

HealthPlus (an IPA based in the Baltimore-Washington area) announced recently that it would replace its withhold system with quality-based bonuses. Doctors can increase their income by as much as 20 percent based on factors such as patient satisfaction and provision of preventive care (Mlawsky 1995). Finally, PacifiCare of California offers shares of stock in the parent company to medical groups that maintain member satisfaction and quality and help build the company's electronic data system (Roberts 1995).

The MPR/MCV survey offered evidence that plans modify payments to primary care physicians using a variety of measures based on patients in a physician's panel, including consumer surveys, quality measures, patient complaints and grievances, and utilization or cost measures (Table 10-8). Two-thirds of surveyed networks/IPAs and 59 percent of group/staff models made some use of either

consumer satisfaction surveys or quality measures in paying primary care physicians, while a roughly similar proportion accounted for utilization or cost measures.¹⁰ For both types of HMOs, these incentives were generally used more often under capitated arrangements than under fee for service. In most cases, the amount by which physician compensation may change as a result of consumer satisfaction and quality measures was reasonably small: 5 percent or less for more than half of the HMOs that use them.

Table 10-8. Use of Selected Measures to Modify Primary Care Physicians' Compensation, by Plan Type, 1994 (percentage of responding plans)

Measure to Modify Compensation	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Consumer Surveys	36	37	55	3
Quality Measures	46	54	64	7
Patient Complaints and Grievances	49	57	61	21
Enrollee Turnover Rates	21	11	36	3
Provider Productivity	24	43	26	3
Utilization or Cost Measures	57	50	74	34
Plans Responding (number)	107	28	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: As many as two plans did not respond to certain items. The sum of the percentages may be greater than 100 percent, because plans may use multiple measures.

Use of Fee Schedules and Global Fees

Although fee for service and managed care are often perceived to be mutually exclusive, both the literature synthesis and the survey showed that forms of fee-for-service payment play an important role in managed care. Plans may combine fee-for-service payment with bonuses or withholds, establish global fees for specific episodes of care, or apply fee schedules to counteract incentives toward more expensive service use or to standardize payments.

The Commission has described the growing use by private payers of Medicare's relative value scale (RVS) as the basis for a fee schedule or as a screen in a charge-based system. Its informal surveys showed that the primary users were Blue Cross Blue Shield plans and PPOs sponsored by commercial insurers. The MPR/MCV survey extends these findings, showing that about one-fourth of PPOs and HMOs (least often group and staff HMOs) made some use of Medicare's RVS. More details on this use, including modifications to Medicare's RVS and methods for setting the conversion factors, are reported in Appendix A.

¹⁰ In the physician survey, among the small number of salaried physicians with individual bonus or incentive payments, about one-third had those bonuses based on objective measures of quality of care (Project HOPE/The Gallup Organization 1995).

The use of global or bundled fees for specific episodes of care or specialized contracts with centers of excellence is apparently gaining popularity among payers. Global fees differ from capitation in that they pay providers per service or per diagnosis, rather than per person. The Utah Public Employees Health Program, for example, negotiates with providers to create global fees for selected inpatient and outpatient procedures. Under one approach, the hospital is paid the global fee and in turn pays all the other providers (surgeon, anesthesiologist, etc.); the hospital is then at risk for staying within the payment amount. An alternative method combines the global fee with a withhold of 20 percent of the physician fee. If total spending is below the global fee, the physician receives his or her withhold and 50 percent of the total savings below the global fee amount. If total spending is above the global fee, the physician is at risk up to the amount of the withhold (Kenkel 1993).

Some managed-care plans enter into specialized contracts with providers of high-cost services such as cardiac bypass surgery, organ transplants, oncology care, spinal and head injury care, and neurosurgery. These contracts may involve global fees or bundled rates that include payment for physician services, inpatient hospital care, and ancillary services. Consulting firms and health plans report significant savings and better outcomes for organ transplants done at selected centers (Stevens 1995). Researchers from Georgetown University were recently awarded a grant from the Robert Wood Johnson Foundation to ascertain how managed-care plans selectively contract for specialized tertiary services such as coronary artery bypass surgery, pediatric heart surgery, and joint replacement.

The MPR/MCV survey found that the use of these approaches to payment for specialty services was relatively recent but growing rapidly (Table 10-6). In particular, competitive bidding was used by 28 percent of all surveyed plans, more often in HMOs than in PPOs. Its use appears to be growing especially rapidly among network and IPA HMOs. Competitive bidding was particularly common for radiology, cardiology, and orthopedics.

Policy Issues

As with network selection and retention, payment methods raise several policy concerns. There is presumably no policy reason to interfere with plans' basic preferences for using salary, capitation, or fee for service to compensate their physicians. Some policymakers, however, may have an interest either in encouraging payment policies that achieve goals such as payment equity or standardization or in restricting payment policies, such as certain kinds of risk sharing, that might be viewed as creating inappropriate incentives.

In the first category, the Commission has observed with interest the growing trend among private plans to adopt some version of Medicare's relative value scale (see Appendix A). The Commission believes that these decisions benefit plans, physicians, and consumers because such fee schedules offer a systematic approach to payment in contrast to the use of historical charges and fee screens; reduce administrative complexity faced by practitioners and plans; and help make payments more predictable for physicians, consumers, and payers.

The Commission also has an interest in innovative uses of bundling or global payments for certain types of services. Most recently, it recommended development and testing of a single global payment to cover trauma services provided by physicians in hospitals designated to care for the most complex trauma patients (PPRC 1994). The experience of private health plans in developing such payment approaches may have potential value for the Medicare program.

The second category of issues—that of restricting certain payment policies—is considerably more difficult to evaluate. The Commission previously considered the possible limitation of risk-sharing arrangements for Medicare’s managed-care plans, especially those with risk contracts (PPRC 1989). It proposed in 1989 that the Health Care Financing Administration require plans to limit the total risk assumed by individual physicians or small groups through reinsurance or stop-loss protection and to rely primarily on incentives to groups of physicians rather than to individual physicians. In making these recommendations for Medicare, the Commission was stating its preference for arrangements that would weaken the effect of specific patient care decisions on the individual physician’s income and would encourage active peer review. The Commission also recommended that plans disclose to both physicians and enrollees appropriate information on risk-sharing arrangements. This policy was designed to allow informed and knowledgeable beneficiaries to identify and prevent any inappropriate care that might result from financial incentives (see Chapter 16).

The Congress included a provision in the Omnibus Budget Reconciliation Act of 1990 to limit financial risk to individual physicians for Medicare and Medicaid payments to 30 percent of payment for services. Although proposed rules to implement this provision were issued in December 1992, the Secretary of Health and Human Services has not yet issued final implementing rules.

Some have proposed applying similar policies to private health plans out of a concern that plans rely on financial incentives to control costs in lieu of strong organizational structures or management systems. Fears are also raised that some risk-sharing arrangements may adversely affect access or quality. Increasingly, however, health plans have built stronger systems for monitoring and influencing the care delivered to their members (see Chapters 16 and 17). While these changes may reduce some concerns, there is still little definitive information on the effects of risk sharing on access or quality. Legislation to address any problems found would be complicated by the multiple factors that contribute to risk, the difficulty of calculating risk, and the role played by intermediate entities.

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PROVIDER-DRIVEN INTEGRATION

The U.S. health care system has been moving steadily away from delivery of health care through independent practitioners and toward more integrated approaches. As late as 1987, more than half of U.S. physicians were self-employed in solo or two-partner practice (AMA 1988). By 1993, this figure had fallen to 37 percent (AMA 1993b).

While some of this reorganization of health care had been done directly by insurers, for example, through ownership of facilities and exclusive contracting with physicians, in other cases providers developed integrated arrangements on their own. Multispecialty group practices have long served to bring physicians together under common medical and financial management. More recently, physicians, hospitals, and other providers have begun to form new types of organizations at a fairly rapid pace. These new organizations range from relatively loose associations of physicians, through physician-hospital joint ventures, up to fully integrated insurer-provider HMOs.

This chapter examines the provider-driven integration of health care. It begins with descriptions of the types of organizations providers are creating. Physician-hospital organizations (PHOs), in particular, appear to be growing very rapidly. The typical PHO allows a hospital and its affiliated physicians to bargain with managed-care plans, yet allows hospitals and physicians to maintain their traditional lines of business.

The second section describes the evolution of markets toward greater integration of care. Health care in the United States is moving toward managed care, and provider organizations are evolving to keep pace. Most newly formed provider organizations show little integration of clinical activities. Even in established integrated delivery systems, the integration of business activities (contracting, purchasing) has progressed much more rapidly than integration of clinical activities (delivery of care). Systems that accept capitation contracts from health care plans show much greater levels of integration and adopt many of the cost-saving strategies found in group and staff model HMOs.

The third section examines the regulatory and legal environment for these new organizations. Currently, only two states explicitly regulate PHOs for financial solvency, but many other states are examining this issue. PHOs and other provider organizations face significant legal issues from antitrust laws, laws against self-referral, and Internal Revenue Service (IRS) regulations regarding mixed nonprofit/for-profit joint ventures.

Provider-driven integration reinforces the impact of managed care on the health care system. This increases the challenge for providers, insurers, and particularly for the Medicare program to keep pace with these changes. As the market moves toward systems of providers contracting with managed-care plans, Medicare risks becoming the last large unrestricted fee-for-service payer. Medicare beneficiaries' care may increasingly be delivered not by a cross-section of physicians,

but by those physicians who were left out of or did not wish to join the new integrating organizations. On the other hand, these integrated systems offer the Medicare program much greater opportunity to expand its use of bundled payments for episodes of care, and to evolve slowly toward capitation.

INTEGRATING ORGANIZATIONS

Defining the new integrating organizations is not an easy task. Health care organizations are in flux as markets move toward more intensive management of care. A definition that describes the typical organization today might be obsolete two years from now as the typical style of practice changes. Consequently there are no agreed-upon standard definitions, and these definitions should be taken as approximate only.

Measuring the number and size of integrating organizations is even more difficult. First, the taxonomy of the organizations is hazy, so even for published data sources it is not clear what is being counted. Second, the categories overlap. Estimates on the number or size of these organizations cannot be added to arrive at the total impact of integrating organizations. Finally, there are few systematic sources of data, and for some types of organizations there are essentially no published sources of information.

Independent Practice Association

The independent practice association (IPA) is typically a physician-organized entity that contracts with payers on behalf of its member physicians. The typical IPA negotiates contracts with insurers and pays physicians on a fee-for-service basis with a withhold. Physicians may maintain significant business outside the IPA, join multiple IPAs, retain ownership of their own practices, and typically continue in their traditional style of practice. Physicians usually invest a modest fee (a few thousand dollars) to join the IPA. IPAs may also undertake a variety of additional roles, including utilization review, and practice management functions such as billing and group purchasing, resulting in greater centralization and standardization of medical practice.¹

There is little systematic data on physician involvement in IPA relationships. The American Medical Association (AMA) Socioeconomic Monitoring System (SMS) captures physician involvement with IPA-type HMOs. The SMS data, however, include payments from both HMO-organized IPAs and provider-organized IPAs, and may exclude preferred provider organization (PPO) payments made through an IPA. With those caveats in mind, in 1993 just over one-quarter of physicians had any contract with an IPA-type HMO (AMA 1993b). On average across all physicians, IPA-type HMOs accounted for roughly 4 percent of practice revenue.²

¹ This description is summarized from case studies in Coddington and Bendrick (1994) and Gorey (1994).

² This calculation is based on AMA data (AMA 1993b).

Physician-Hospital Organization

The physician-hospital organization contracts with payers on behalf of the hospital and its affiliated physicians. The organization is responsible for negotiating health plan contracts, and in some cases, conducting utilization review, credentialing, and quality assurance. The PHO may centralize some aspects of administrative services or encourage use of shared facilities for coordination of clinical care (Gorey 1994).

The typical PHO is a hospital-sponsored organization that centers around a single hospital and its medical staff (Ernst & Young 1995). PHOs may also form as joint ventures between hospitals and existing physician organizations such as a large multispecialty medical group or an IPA. PHOs are further divided into open PHOs, which are open to all members of the hospital's staff, and closed PHOs, where the PHO chooses some physicians and excludes others (Advisory Board 1993).

As with the IPA, the typical PHO accounts for only a modest share of the physician's (or the hospital's) business. Physicians retain their own practices, and their relationship to payers other than those with whom the PHO negotiates is unchanged. As with IPAs, the PHO can move toward greater centralized control over practice management and medical practice (Gorey 1994).

PHOs currently account for just a small portion of health care delivery, but they appear to be growing rapidly. The American Association of Physician-Hospital Organizations (AAPHO) estimates that there were 500 PHOs operational in 1994, and as many as 1,000 being formed (Neel 1995b). At the end of 1994, more than three-quarters of PHOs were less than two years old, and about half were less than one year old (Ernst & Young 1995).³

Perhaps one-fifth of hospitals currently have a PHO. A 1994 survey by the Prospective Payment Assessment Commission found that 15 percent of hospitals had a PHO, while a different 1994 survey pegged this figure at 20 percent (Neel 1995b, Deloitte & Touche 1994).⁴ Most of the remaining hospitals report plans to form a PHO in the near future. Only 13 percent of hospitals had no plans for a PHO (Deloitte & Touche 1994).

Physicians, by contrast, are somewhat less likely to participate in a PHO. The Physician Payment Review Commission's 1994 survey of physicians found that 7 percent reported joining a PHO during the past two years (Project HOPE/Gallup Organization 1995). A 1994 survey of physician groups found that 9 percent of physician groups were currently in some form of joint venture with a hospital (Marion Merrell Dow 1994).

The Commission-sponsored survey of managed-care plans provides information on PHOs from yet another perspective. More than half of 108 managed-care plans interviewed said that these integrated

³ Given these rates of growth, surveys just a few months apart would yield significantly different data. This might in part explain the discrepancies across the survey sources cited below.

⁴ Based on a U.S. census of roughly 5,500 community hospitals, these figures would yield roughly 800 to 1,100 operational PHOs, somewhat higher than the AAPHO estimate of 500 operational PHOs in 1994.

systems were operational in their market areas, and essentially all plans reported that such networks were forming in their areas.⁵ Two-thirds of managed-care plans judged that integrated systems were having an overall positive impact on the plans: Overwhelmingly the most-cited impact of these new systems was to increase the number of physicians contracting with the managed-care plan (Gold et al. 1995).

A recently completed survey of PHOs, conducted by Ernst and Young, provides the greatest depth of detail and information on these organizations. The typical PHO is a small, new organization centered around one hospital and its medical staff. One-fifth of PHOs are wholly owned by a hospital, nearly four-fifths are at least 50 percent hospital owned, and nearly 85 percent received start-up funds from a single hospital (Ernst & Young 1995).

Data from this survey can be used for a very rough estimate of the number of individuals served through PHOs. Roughly half of PHOs had contracts totaling more than 25,000 lives, and half had fewer (Ernst & Young 1995). Using 25,000 lives as the typical figure for a PHO in 1994, and taking 500 to 1,000 as the range of estimates for the number of PHOs, this would yield between 5 percent and 10 percent of the U.S. population receiving care through PHO arrangements in 1994.⁶

Group Practice

A medical group practice is defined as “the provision of health care services by three or more physicians who are formally organized as a legal entity in which business and clinical facilities, records, and personnel are shared. Income from medical services provided by the group are treated as receipts of the group and are distributed according to some prearranged plan” (AMA 1993a).

The group practice is a well-established form of organization and one of the few organizational types for which good data are available. In 1991, physicians were split almost equally among three practice settings: group practice, solo or two-physician practice, or other patient care such as hospital-based practice (AMA 1993c).

Overall, roughly 11 percent of U.S. physicians work in large multispecialty groups.⁷ The typical group practice, however, remains a small, single-specialty group. Single-specialty group practices account for 70 percent of all groups, with multispecialty groups accounting for the remaining 30 percent (Marion Merrell Dow 1994). Nearly three-quarters of group practices have 10 or fewer physicians. Large groups (100 or more physicians) account for between 1 percent and 3 percent of

⁵ This might overstate the overall presence of PHOs, however, because this survey over-sampled plans in areas with a significant presence of managed care.

⁶ This estimate is clearly very approximate. Data on physician participation in PHOs, for example, would suggest a much lower number.

⁷ These calculations are based on data from the AMA (AMA 1993b; AMA 1993c).

groups, but one-third of group-based physicians work in these large groups (AMA 1993c; Marion Merrell Dow 1994).

The percentage of physicians working in group settings has grown modestly in recent years. From 1988 to 1991, physicians working in group settings rose from 30 percent to 33 percent of all physicians (AMA 1993c).

Group Practice Without Walls

A group practice without walls (GPWW) refers to physicians in physically independent facilities who form a single legal entity to centralize the business aspects of their organization (Coddington and Bendrick, 1994). In the typical case, the GPWW is organized by a strong, centralized clinic that adds individual physicians or small groups in satellite offices. In some cases, the GPWW is financially identical to a traditional group practice: It owns the assets of the individual practices and physicians share ownership of the GPWW, making it a unified business organization for the decentralized delivery of care. In other cases, physicians retain ownership of their own practices but enter into agreements for administrative and marketing functions. The GPWW may itself own certain ancillary services such as laboratory services (Anderson 1995).⁸

Management Services Organization

The management services organization provides administrative and practice management services to physicians. An MSO may typically be owned by a hospital, hospitals, or investors (Ernst & Young 1995). Large group practices may also establish MSOs as a way of capitalizing on their organizational skill by selling management services to otherwise unorganized physician groups.

MSOs can provide a very wide variety of services. Smaller and not-for-profit MSOs may limit operations to selling physicians various administrative support services, such as billing, group purchasing, and various aspects of office administration.⁹ In other cases, hospital-owned MSOs are the vehicle through which hospitals purchase physician practices outright, leaving the physician either as an employee of the hospital or as an independent contractor with the physical assets of the practice owned by the hospital (Neel 1995a). Large, for-profit MSOs typically purchase the assets of physician practices outright, install office managers and other personnel, hire the physician through a professional services contract, and negotiate contracts with managed-care plans, all in exchange for a share of gross receipts typically based on the physicians' current practice expenses (Neel 1995a).

In 1994, roughly 9 percent of physicians had contracts with an MSO (Project HOPE/Gallup Organization 1995). In three-quarters of those cases, the MSO negotiated with managed-care plans on

⁸ The clinic without walls is a hospital-based variation of the GPWW in which a hospital outpatient department organizes satellite physician offices (Marion Merrell Dow 1994).

⁹ The term management services bureau is sometimes used to describe organizations that merely sell administrative support services to the physician (Advisory Board 1993)

behalf of the physician. The typical contract between the physician and the MSO was less than two years old. Only in about half of the cases did the MSO provide intensive practice management, such as leasing of office space and management of support personnel. One-third of MSOs were owned solely by a hospital (Project HOPE/Gallup Organization 1995).¹⁰

Hospital-Owned Medical Practice

In addition to the purchase of a medical practice through an MSO, hospitals can directly purchase medical practices, typically as part of their outpatient department (Advisory Board 1993).

In the Commission's 1994 survey of physicians, 11 percent of physicians report that a hospital has "some ownership interest" in their practice (Project HOPE/Gallup Organization 1995). The extent of the ownership interest cannot be quantified. For group practices, about 4 percent report being owned outright by a hospital, while a further 5 percent of groups were a hospital department (Marion Merrell Dow 1994). According to one recent survey, 36 percent of hospitals owned at least one physician practice (Deloitte & Touche, 1994).

Integrated Delivery System

Finally, a number of functionally similar organizations are built around hospitals and physicians linked in exclusive arrangements. In these integrated delivery systems (IDSs), a hospital or hospitals and large multispecialty group practices form an organization for the delivery of care, with all physician revenues coming through the organization.¹¹ These include foundation model, staff model, and equity model IDSs (Advisory Board 1993).

The main difference among these organizations is in the legal formalities of who works for whom, and in the professional autonomy of the affiliated physicians. In a typical foundation model system, the hospital establishes a not-for-profit foundation that purchases the assets of an existing physician group, signing an exclusive professional services contract with the physician corporation. Payers pay the foundation, which then pays the physicians' professional corporation.¹² In a staff model system, physicians work directly for the system without the intervening not-for-profit foundation and professional corporation. In an equity model system, physicians own a part of the system and share significantly in its financial success or failure.

In some markets, large group practices appear to be a significant alternative to these types of physician-hospital systems. In testimony before the Commission, Robinson (1994) identified the

¹⁰ A recent survey of medical groups found that just over 2 percent of groups contracted with a hospital-owned MSO (Marion Merrell Dow 1994). This agrees well with the Commission's survey estimate that 3 percent of physicians contracted with a solely-hospital-owned MSO (Project HOPE/Gallup Organization 1995).

¹¹ While some researchers would call these integrated delivery systems a form of PHO, most reserve the term PHO for those organizations where only a small fraction of the physicians' revenues come through the organization.

¹² The presence of the foundation model system is due in part to state laws prohibiting the corporate practice of medicine, and the need for arms-length financial agreements between for-profit and not-for-profit entities (Burns and Thorpe 1993).

capitated multispecialty group practice as the “center of gravity” of integrating activities in Southern California. In that marketplace, some large multispecialty groups are accepting capitation contracts from payers, then purchasing hospital services and coordinating the delivery of care, achieving system-type organization without a formal alliance with the hospital.¹³

LEVELS OF INTEGRATION IN PHOS AND SYSTEMS

PHOs and other provider networks and systems show a wide range of integration of their business and clinical activities. The level of integration typically reflects the characteristics of the market, particularly the degree of managed care penetration. In some areas of the country, traditional indemnity insurance is still the primary mode of health care financing, with each provider paid independently on a fee for service basis. In other areas, indemnity insurance has all but disappeared in favor of various types of managed care and the capitation of systems of providers.

This section of the chapter examines various integrating organizations within the overall evolution of markets toward managed care, and looks at the extent of integration within three different types of organizations. The typical PHO shows very little integration of any of its functions (Ernst & Young 1995). This should not be surprising, given that the typical PHO is less than a year old. Well-established integrated delivery systems, by contrast, show a positive relationship between overall perceived integration and objective measures of system performance (Shortell et al. 1994). Even for those systems, however, integration of clinical activities is slower than integration of the business aspects of health care delivery (Gillies et al. 1993). Finally, case studies suggest that integrating organizations whose business comes largely in the form of capitation contracts begin to act like HMOs, reducing hospital use, emphasizing primary care providers, and investing in preventive care to avoid health care crises.

The Evolution of Markets and Organizations

Most industry observers believe that both markets and organizations are evolving away from unrestricted fee-for-service care toward managed care (Conrad 1993; Shortell et al. 1994). PPOs and discounted fee-for-service care are indicative of the initial phase of development. HMOs and capitation represent a more advanced stage.

The University Hospital Consortium has formalized market evolution by characterizing four stages of market development (UHC 1992). Stage I markets are unstructured fee for service, with independent hospitals, physicians, employers, and HMOs. Stage II markets are those where HMO enrollment has grown, putting pressure on hospital rates and occupancy rates. Stage III markets are characterized by consolidation across the spectrum of insurers, providers, and purchasers, with capitation contracts

¹³ One prominent industry analyst states that this approach of integration through contractual arrangements is the appropriate way to achieve true clinical and financial integration, and predicts that much of current activity directed toward asset purchases and formal alliances will be undone over the next decade (Goldsmith 1994).

growing in importance. Stage IV markets are characterized by some direct contracting between purchasers and integrated systems, and extensive capitation of providers with the associated shifting of financial risks to physician groups and PHOs (UHC 1992).

The formation of PHOs and other types of provider-driven integrating organizations is largely a consequence of the growth and development of managed-care plans. PHOs are far more common in areas with a significant presence of managed care (Gold et al. 1995). PHOs are formed primarily to contract with managed-care organizations, and physicians' most commonly cited reason for joining an integrating organization was to obtain bargaining power vis-à-vis plans (Ernst & Young 1995; Project HOPE/Gallup Organization 1995).

The form of payment to provider organizations such as PHOs largely reflects the stage of development of their market areas. In markets where managed care is in its beginning stages—typically markets with PPOs—PHOs usually enter into discounted fee-for-service business (Gorey 1994). In markets characterized by HMOs, by contrast, intermediate entities such as PHOs are more likely to be paid on the basis of capitation (Gold et al. 1995).

Individual organizations appear to evolve toward greater levels of integration. Organizations form initially to negotiate fee-for-service arrangements, then move gradually into capitation and the tighter utilization management that capitation entails. Older and more established PHOs are more likely to accept capitation contracts than younger ones (Gorey 1994; Ernst & Young 1995). PHOs typically form initially with panels of physicians that reflect the ambient specialty mix in their market, but move toward higher proportions of primary care physicians as they mature and accept capitation contracts (Advisory Board 1993). The typical PHO cycle runs from a PHO with an open panel and no risk contracts, to full capitation contracts and strong medical management (Ernst & Young 1995). Ultimately, PHOs may go on to form their own HMOs, developing into a type of hybrid HMO.¹⁴ As of 1994, at least 12 PHOs had formed their own HMOs (Neel 1995b). Fully one-third of PHOs would like to develop their own HMO product (Ernst & Young 1995).

The varying levels of integration in these new organizations probably reflect, to a degree, the stage of evolution of their respective markets. IPAs, PHOs, and some MSOs and GPWW arrangements may play a particularly important role in providing a gradual path toward integrated systems. These organizations can start with just a portion of the physician's business, allowing the physician a toehold in managed care without requiring an all-or-nothing commitment. The level of centralized control can shift over time, with standardized policies on wages, information systems, staffing levels gradually phased in (Anderson 1995; Advisory Board 1993). Other approaches to integration may demand a much more abrupt change in practice. Group practices, the various forms of integrated delivery systems (foundation, staff, and equity model systems), and some MSO and GPWW arrangements may require a total commitment on the part of the physician.

¹⁴ Unlike a traditional HMO, the PHO-HMOs maintain significant non-HMO business parallel to their own HMO product.

Conversely, organizations such as IPAs and PHOs may have only a limited ability to modify patterns of practice. The individual physician may have a small financial stake in the success of the organization, and the organization's payment and utilization review policies may have a negligible impact on the physician. In a group practice or integrated delivery system, the provider's entire income would depend on the financial success of the group, so that decisions made by the group would have a much stronger impact on the individual physician.

Current Levels of Integration in PHOs

A recent survey of PHOs shows fairly convincingly that there is little integration in the typical PHO. Currently, the typical PHO is a discounted fee-for-service organization with few resources devoted to systemwide integration, and with specialty mix that reflects the mix of physicians in the surrounding community. These findings may, however, reflect the fact that most PHOs are less than a year old (Ernst & Young 1995).

Half of PHOs had less than one full-time equivalent staff person devoted to systemwide functions such as finance, utilization management, management information systems, or provider relations. PHOs rated many aspects of functional integration as relatively unimportant: Physician recruitment, acquisition of practices, joint billing, and group purchasing were typically rated as unimportant factors in the formation of the PHO (Ernst & Young 1995).

The typical PHO obtains the great majority of business through discounted fee-for-service arrangements, not through capitation. Although almost half of PHOs had contracts for 25,000 lives or more, the majority of those lives were covered under PPO contracts. Just 18 percent of payers were HMOs. Of the PHOs with HMO contracts, however, 35 percent had contracts for more than 12,000 lives, and these capitation-committed PHOs had a much greater use of utilization management and primary care case management (Ernst & Young 1995).

The specialty mix of the typical PHO reflected the specialty mix of the hospital staff or local community. Only about 20 percent of PHOs had a primary care physician to specialist physician ratio in excess of 50 percent (Ernst & Young 1995).

The Health Systems Integration Study

The Health Systems Integration Study provides an in-depth view of the level of integration in several physician-hospital integrated delivery systems. This study examined 12 organized delivery systems and presents one of the few systematic studies of the effects of integration of care across physicians and hospitals. It defined integration as "the extent to which functions and activities are appropriately coordinated across operating units... so as to maximize the value of services delivered to patients" (Gillies et al. 1993).

This study began by identifying three major dimensions of integration in health care systems. Clinical integration is the extent to which patient care activities are appropriately coordinated across operating

units. Functional integration is the extent to which key support functions (finance, human resources, information systems, marketing) are coordinated across operating units so as to add the greatest overall value to the system. Physician-system integration is the extent to which physicians are economically linked to a system; use its facilities and services; and participate in its planning, management, and governance (Gillies et al. 1993).

The organized delivery systems in the study consisted of a dozen well-established multihospital systems that had recently added a significant physician component. All these systems had managed care contracts, with typical managed-care enrollment ranging from roughly 100,000 to 1.7 million covered lives. Key personnel within those systems were questioned on various aspects of system integration. Perceptions of integration were then related both to perceptions of functional effectiveness and to objective operating and performance measures (Shortell et al. 1994).

Integration was much higher for the nonclinical aspects of system operation. It was highest for financial management and operating policies, and lowest for clinical activities.¹⁵

Perceptions of integration and effectiveness were fairly well matched. The systems rated themselves most effective in terms of financial planning and least effective in terms of clinical integration. Individuals' ratings of integration were typically highly positively correlated with ratings of effectiveness. These perceived linkages from integration to performance were borne out by objective performance data as well. Greater perceived integration was associated with higher productivity in the delivery of inpatient care, higher net revenue, and a higher level of overall system financial performance (Shortell et al. 1994).

Tools of Clinical Integration in Capitated PHOs

Although there appears to be relatively little integration in the typical PHO, this is not the case for PHOs and multispecialty groups with a high share of revenues coming through capitation contracts. Under capitation, these groups begin to adopt many of the tools traditionally used by group and staff HMOs to modify patterns of care.

One approach to reducing costs that capitated integrated systems take is to move care down the training-intensity spectrum, from specialists to generalists, to nurses, and to the patients themselves. Use of a primary care gatekeeper is one such approach, where each patient must sign up with a primary care physician responsible for coordinating care for that patient and for making referrals to specialists. This type of system typically results in both an increase in remuneration of and an expansion of typical scope of practice for primary care physicians.¹⁶ A second general approach is the substitution of nonphysician practitioner time for physician time. For example, telephone inquiries

¹⁵ Integration of clinical practice was measured by development of treatment protocols, use of uniform medical records across settings, collection and analysis of outcomes data, and other factors related to the coordination of patient care across sites of service.

¹⁶ Primary care remuneration rises in part because primary care physicians become the sole source of the system's revenues. Typically, the number of patients who sign up with the system's primary care physicians is multiplied by the capitation amount to determine total payments to the system.

from patients are routed first through nurses whose job is to advise patients on appropriate next steps in seeking care, and nurse practitioners and physician assistants are used to minimize required physician time. Finally, health personnel may educate patients on self-care of chronic conditions such as diabetes, allowing patient self-care to substitute for use of formal caregivers.

A second approach is to move care down the site-intensity spectrum, moving care away from the hospital inpatient setting toward less intensive sites of care. This can be done by purchase or contracting for alternatives to hospital inpatient use, such as subacute nursing facilities and home health agencies. Intensive coordination of site of service, though, increases the need for enhanced discharge planning. An additional approach to minimizing site intensity is to use outpatient surgery where possible.

Emphasis on preventive care is another area in which capitated systems move toward the HMO model. In addition to the traditional public health view of preventive care in terms of immunizations and screening tests, capitated systems seek novel ways to avoid or postpone the types of health care crises that can lead to expensive inpatient episodes. Efforts can include more intensive health screening of new enrollees, including an inventory of prescription drugs used and chronic health problems, along with protocols aimed at maintaining health status through more intensive use of outpatient treatment.

REGULATORY AND LEGAL ISSUES FOR INTEGRATING ORGANIZATIONS

The entry of PHOs, IPAs, and integrated delivery systems (IDSs) into the marketplace is raising a number of regulatory and legal issues. On the one hand, because existing laws are largely written to address traditional insurers and providers, these new organizations may sometimes be unintentionally exempt from state laws regarding fiscal solvency and quality standards. This is a concern both from the standpoint of consumer protection and from the standpoint of providing a level playing field for the competition between these new organizations and traditional insurers and providers. On the other hand, laws developed for traditional insurers and providers may affect the growth and structure of these new organizations. Antitrust law, anti-self-referral regulations, and rules regarding the tax treatment of joint for-profit/nonprofit ventures all may be shaping the development of provider-driven integration.

Approaches to Oversight of Integrated Delivery Systems

Integrated delivery systems often fall outside scope of existing state laws. Most states allow IDSs to operate without some of the restrictions faced by traditional insurers or managed-care organizations. At least two states have rewritten their insurance laws specifically to address these new organizations.

Physician-hospital organizations that accept capitation risk are of particular concern to state insurance departments, whose reactions range from tracking development of these organizations to requiring that risk-bearing organizations become licensed as insurers. The National Association of Insurance

Commissioners (NAIC) is currently writing a Model Uniform Licensing Act (MULA) that may become the pattern for revision of state health insurance laws.

New State Approaches. Minnesota and Iowa provide examples of the approaches that states have taken in adapting to the growth of integrated delivery systems.¹⁷

Minnesota has enacted legislation requiring all health plans to be licensed as integrated service networks (ISNs). These networks are HMOs or other integrated delivery systems that have more than 50,000 members, including those contracting with self-insured employers. Minnesota is developing regulations for its ISN system, and the legislature is scheduled to decide in 1995 on many of these issues.

The Minnesota approach is based largely on current HMO requirements. These include the creation of a standard benefits package, requirements for the inclusion of essential community providers in ISN networks, and special rules governing the enrollment and provision of services to individuals enrolled in public programs (Alpha Center 1994). All existing health insurance regulations will remain in place until July 1997, when the licensing of ISNs is expected to be fully implemented.

Minnesota has also created a second category of plans, community integrated service networks (CISNs), to encourage local involvement in the development of ISNs. These networks provide prepaid health services to 50,000 or fewer enrollees. They must meet less stringent standards than ISNs for net worth, insolvency protection, and provider risk sharing, and are not subject to other HMO regulations with respect to quality assurance, disclosure, marketing, and reporting. CISNs can transfer some of their risk to accredited capitated providers, which are state-licensed health care entities permitted to accept risk from these networks (Ernst & Young 1994). To give smaller entities a head start, CISNs were allowed to begin forming in January 1995, 18 months before ISNs are allowed to form. Approval for the establishment of the first CISN was recently granted (IHPP 1995).¹⁸

Iowa has enacted legislation for licensure of organized delivery systems through the state department of health. These systems are risk-bearing entities that are neither HMOs nor insurers. To become an organized delivery system, interested organizations must file with the state, meeting certain standards and solvency requirements that are less restrictive than current HMO requirements.¹⁹ In order to promote provider-based integrated delivery systems, especially in rural areas where insurer-based integrated system development has been slow, these systems are granted state immunity from antitrust laws.

The Model Uniform Licensing Act. To assist the states in updating their insurance and managed care regulations, the National Association of Insurance Commissioners is developing a Model Uniform

¹⁷ The information provided in this section draws heavily from Ernst & Young (1994) and Fox (1994).

¹⁸ Most PHOs would fit under the description of a CISN.

¹⁹ Thus, PHOs accepting capitation risk would be organized delivery systems, and would not need to become licensed as insurers or HMOs.

Licensing Act. The model licensing law would provide a common regulatory framework for all types of health care plans. The NAIC definition of “health plans” currently includes indemnity health insurance, HMOs and PPOs, but the NAIC is considering including PHOs, organized delivery systems, and integrated delivery systems in its definition (Mlawsky 1995a).

The NAIC’s historically important role in guiding the development of state insurance law makes this a significant development. Its Model HMO Act became a widely used voluntary standard for state government oversight of HMOs in the 1970s.

The model licensing law is expected to contain provisions addressing all aspects of health plan operation, including licensing, financial solvency, provider contracting, utilization review, grievance procedures, and the like (NAIC 1994). By 1996, the NAIC expects to add capital standards based on recommendations of the American Academy of Actuaries, taking into account the organization’s size, the amount of financial risk it assumes, and other factors such as reinsurance arrangements and guarantee funds (Ernst & Young 1994).

State Laws and Physician-Hospital Organizations. Ernst & Young (1994) recently completed a survey of state insurance laws and PHOs. Its analysis found that state insurance and health departments are generally not concerned about PHOs acting strictly as provider contracting organizations. Some issues arise when PHOs begin performing traditional insurance functions such as quality assurance, credentialing, and utilization management. PHOs draw significant attention when they accept financial risk, either through transfer of risk from HMOs, or through directly writing capitation (as opposed to fee-for-service) contracts with employers.

As discussed above, Minnesota and Iowa have established licensing requirements for integrated delivery systems, including PHOs. While no other states have yet directly addressed the ability of PHOs to accept financial risk, nine states are currently considering such laws (Ernst & Young 1994).

Other states are considering a variety of approaches. In Pennsylvania, a joint proposal by the departments of insurance and health outlines acceptable arrangements for HMOs to transfer risk and other responsibilities to PHOs. Risk-shifting arrangements between HMOs and PHOs would be acceptable so long as the HMO “retains responsibility for quality of care and pays funds to individual providers, and continues to contract directly with each provider” (Mlawsky 1995b). The proposed rules would also include consumer protections and solvency standards for PHOs. In the meantime, the two departments have urged HMOs to get approval of PHO arrangements.

Current Texas law prohibits any entity other than a licensed HMO or physician group from accepting capitation payments. Texas insurance regulators are concerned that PHOs are acting as unlicensed HMOs in this regard. Texas is actively trying to establish the legality of PHO activities and require that PHOs that assume risk get licensed as HMOs. The Texas Hospital Association and the Texas Medical Association are drafting a proposal that would allow PHOs to accept capitation without an HMO license (Mlawsky 1995b). The Texas legislature is expected to address these issues in 1995.

The New York legislature, in an attempt to determine which risk-bearing entities fall under state health insurance laws, is considering subjecting integrated delivery systems to a “business review letter process, similar to the Justice Department’s antitrust process,” whereby each new IDS would be reviewed (Roberts 1995). Providers are urging policymakers, however, to move slowly on such legislation.

State laws may also govern PHOs that directly contract and accept risk from self-funded employers, although these laws raise concerns related to the Employee Retirement Income Security Act (ERISA). ERISA exempts employee benefit plans offered by self-insured employers from many state laws. There are jurisdictional disputes over whether risk assumption by PHOs in this setting is subject to state oversight. The American Association of Physician Hospital Organizations (AAPHO) holds that PHOs that directly contract with self-insured employers should be regulated to protect both patients and providers (Mlawsky 1995b) (see Appendix C for further discussion on ERISA).

A total of 25 states require that risk-bearing activity can be undertaken only by licensed entities such as insurers and HMOs. Although PHOs are not mentioned in these statutes, they would be prohibited from accepting risk by default (Ernst & Young 1994). These laws apply even when a PHO contracts with an self-insured employer and thus preempt ERISA. Two states, on the other hand, uphold the ERISA exemption, stating that it supersedes their involvement in this matter. The remaining 23 states currently do not have a set policy, but many of the insurance departments in these states request to review proposals before PHOs enter into risk-bearing contracts (Ernst & Young 1994).

In addition to concerns about the risk-bearing activities of PHOs, issues of accountability have been raised when PHOs take on other activities such as utilization review, provider credentialing, and quality assurance. State laws that apply to the HMO’s delivery network apply to PHOs once a PHO contracts with a licensed HMO (Ernst & Young 1994). For example, PHOs that conduct utilization review are subject to applicable state licensure or certification requirements. Currently, about half of the states have regulations that oversee the conduct of utilization review. In many instances, however, state insurance and health departments are unsure how many PHOs exist, making enforcement of these statutes difficult (Ernst & Young 1994). The AAPHO maintains that PHOs that contract with insurers or health plans do not need to be separately regulated because the contracting organization, which is regulated, is the party that is ultimately accountable to employers and enrollees (Mlawsky 1995b).

Other Legal Issues for Provider-Driven Integration

Three additional legal issues should be noted in the discussion of provider-driven integration. These include application of antitrust laws, a new federal prohibition on physician self-referral, and Internal Revenue Service restrictions on joint for-profit/not-for-profit enterprises. This section briefly notes the issues involved in each case.

Antitrust Law. Chapter 13 discusses physician networks and antitrust laws in detail. The Federal Trade Commission and the Department of Justice have jointly identified safety zones in this area:

Provider networks meeting certain criteria will not be subject to antitrust legal challenges. Briefly, these safety zones raise two issues in the formation of IPAs and PHOs.

The safety zones require that provider organizations meet two criteria. First, organizations fall within the safety zones only when physicians have a significant financial risk in the organization's performance. This risk could, for example, be in the form of the organization writing capitation contracts or using significant fee withholds based on overall expenditures for the network's enrollees. Second, the organizations fall within safety zones only when they comprise a relatively small portion of each physician specialty in the relevant market. This proportion is 20 percent for exclusive organizations, and 30 percent for nonexclusive organizations.²⁰

As discussed in Chapter 13, the criteria established for these safety zones are not meant to limit the development of networks, but merely to identify certain types of provider networks that are guaranteed to be free from antitrust concerns. Formation of a network that does not meet the criteria of the safety zone does not automatically result in an antitrust challenge. Providers may nevertheless be unwilling to form networks that do not meet the criteria. To the extent that this is true, the antitrust laws may be having an impact on the size and financial structure of provider networks.

Anti-Self-Referral Law. The Medicare program has a longstanding policy banning payment for referral of patients. It is unlawful for physicians or others knowingly and willing to solicit or to offer remuneration for patient referrals.²¹

The Omnibus Budget Reconciliation Act of 1989 (OBRA89) added a further explicit prohibition based on ownership of facilities. OBRA89 prohibited physicians from referring Medicare beneficiaries for clinical tests to laboratories in which the physician had a financial interest.²² The genesis of the law was a series of General Accounting Office studies showing significantly higher use of tests for physicians who referred patients to facilities they owned (GAO 1989). Numerous specific exemptions were made for common sense cases such as group practices or laboratories in rural areas. This rule went into effect on January 1, 1992.

The Omnibus Budget Reconciliation Act of 1993 extended the anti-self-referral provision to a much broader set of services in addition to clinical lab tests.²³ The law exempts referrals within group practices, managed-care plans, medical school faculty practice plans, and other traditional

²⁰ For antitrust law, the term "exclusive" means that the physician works solely for the PHO or IPA, not that the PHO or IPA attempts to exclude certain physicians.

²¹ This provision is Section 1128B(b) of the Social Security Act.

²² The anti-self-referral law is section 1877(a)(1)(A) of the Social Security Act.

²³ These include physical and occupational therapy, radiology and other diagnostic services, radiation therapy, durable medical equipment, enteral and parenteral nutrition and supplies, orthotic and prosthetic devices, home health services, outpatient prescription drugs, and inpatient and outpatient hospital services.

arrangements, and establishes numerous types of exempted transactions, including a variety of arms-length or market-rate agreements.

The law does not specifically address issues related to the newer, less well-defined provider organizations such as PHOs and IPAs, and there may be the potential for some referrals within organizations such as PHOs to trigger infringement of the anti-self-referral laws. The law went into effect January 1, 1995, and the Health Care Financing Administration is still in the process of clarifying the resulting regulations. It is probably too soon to evaluate the likelihood that PHOs or other organizations will be hindered by these provisions.

Rules Governing Joint For-Profit/Nonprofit Ventures. The Internal Revenue Service (IRS) maintains rules designed to prevent the benefits of nonprofit (tax-exempt) status being used for the financial gain of a for-profit entity. In general, payments made by nonprofit and not-for-profit corporations must be at fair market value. In joint ventures between nonprofit and for-profit entities, the for-profit entities cannot have substantial control over the operation of the nonprofit entity. A nonprofit organization risks losing that status if the IRS judges that the organization is being run for the benefit of its for-profit partner.

These rules place significant constraints on the operational structure of for-profit PHOs organized by nonprofit hospitals. In particular, it may require that physicians hold only a minority position on the board of directors of the PHO to ensure that the nonprofit partner maintains tax-advantaged status.

IMPLICATIONS FOR THE U.S. HEALTH CARE SYSTEM AND FOR MEDICARE

The implications of provider-driven integration for the U.S. health care system and for the Medicare program will depend on whether and how these organizations develop. Many integrating organizations are very new, focused on discounted fee-for-service contracts, and have done little to modify practice patterns or to integrate the delivery of care. Other, more established organizations accept significant capitation risk and appear to adopt many of the practice modifications found in the typical group- or staff-model HMO.

Regardless of the form that they eventually adopt, these new provider-driven integrating organizations will probably hasten the spread of managed-care plans and the structured delivery of care. These organizations make it easier for managed-care plans to contract with an organized base of physicians, thereby lowering a barrier to increased managed-care enrollment (Gold et al. 1995).

As a consequence, the growth of these organizations shrinks the timeline and magnifies the impact of all the policy questions related to the growth of managed care. First, on the positive side, managed approaches to care seem to offer the chance for lower health care costs. A significant portion of the recent moderation in premium increases has been attributed to increased enrollment in managed-care plans. As a consequence, these changes may help to keep health care cost inflation down.

Second, as these new organizational forms mature, they will reinforce existing trends in the physician labor market. Although these organizations initially form with the same mix of specialists and primary care physicians in the community, they appear to move toward an HMO model of increased use of primary care physicians and reduced use of specialists.

Third, all of the issues related to existing cross-subsidies in the health care system—for charity care of the poor and uninsured, for public providers to serve the uninsured, for medical education, and for research—should be raised for these organizations as well. The growth of these new organizations may affect the flow of funds that currently supports these activities, and one might want to know more about the impact that these changes may have on these aspects of the health care system.

A fourth issue relates to selection and deselection of physicians and to any willing provider laws.²⁴ Because these organizations compete for insurer's business, they may have the same incentive to tailor physician panels in order to offer a reasonable cost per insured life. The issues of any willing provider laws that currently apply to insurers may develop as significant issues for these organizations as well.

Finally, these organizations raise all of the other quality issues related to managed-care and capitation incentives, including the potential for under-provision of care and for a reduction in continuity of care as employers change insurance offerings. Currently, these organizations typically receive less oversight than traditional managed-care plans.

Changes in these organizations may also spill over into the professional liability insurance market. Individual physicians purchasing insurance through their own, largely local, cooperative organizations, may be supplanted by practice managers purchasing insurance in a national market. This reduction of the size of the available market for physician-owned liability companies might have an impact on independent practitioners trying to retain coverage from their traditional sources. In addition, if the scope of practice of primary care providers increases, the structure of liability insurance premiums may change, increasing rates for primary care physicians. At a minimum, these changes would need to be reflected in the structure of Medicare's rates.

Opportunities and Challenges for the Medicare Program. These organizations do not just affect health care delivery in the private sector. They raise significant issues relevant to the particular circumstances of the Medicare program.

First, PHOs offer Medicare the opportunity to expand its current demonstrations of bundled payments. Medicare currently is operating multisite demonstrations of all-inclusive payments for coronary artery bypass graft and cataract surgery. The presence of financially integrated physician-hospital organizations greatly increases the pool of entities that could routinely accept bundled Part A and Part B payments. Although the current demonstrations focus on centers of excellence, the growth of these organizations might allow Medicare to expand the use of episode-based payments for a wider variety

²⁴ Any willing provider laws are state laws requiring managed care plans to accept any provider that meets the plan's standards. See Appendix D for more detail.

of services. This could be part of Medicare's evolutionary path away from fee for service and toward capitation.

Second, the Medicare program may need to reexamine its oversight activities for the risk contracting program. Medicare maintains a number of safeguards on the quality of care in risk contracting HMOs, but does not directly extend these activities to subcontractors of those HMOs. Some beneficiaries are already receiving care through IPAs, PHOs, and other HMO subcontractors. If the market moves more in the direction of HMOs subcontracting to PHOs and other organizations for the delivery of care, the Medicare program may want to adapt its methods for ensuring the financial and medical standards of the organizations providing care.

Finally, Medicare, as a public entity, faces significant handicaps in keeping up with the pace of change in the health care market. What employers can accomplish through contracting and negotiation, the Medicare program must do with the much slower processes of legislation and rulemaking. Where employers can restrict choice of insurer or institute significant financial incentives for cost-conscious choices, the Medicare program has historically been bound by statute and tradition to maintain the beneficiaries' freedom of choice of provider and has had much more limited power to encourage beneficiaries to use managed-care systems.

These aspects of the Medicare program make it slower to respond to the changing market, but they also serve as a significant protection for Medicare beneficiaries. The particular challenge for the Medicare program will be to accelerate the use of managed-care providers while preserving the longstanding principle of relying on voluntary actions on the part of beneficiaries.

As a first step, the Medicare program might assess ways to monitor the development of these organizations over time. Markets may continue to change at a rapid pace, and Medicare needs to be able to adapt not just to the current state of affairs, but to any trends that are expected to continue. At a minimum, this requires an initial effort to develop an agreed-upon taxonomy for these organizations.

Monitoring these new integrating organizations will be a difficult task. Traditionally, a combination of licensure data and intensive surveys by professional associations has provided the census and detailed operational data for most health care providers. Hospitals and other facilities; physicians, nurses, and other health care personnel; and insurers are required to be licensed in their respective states. These licensure data, combined with systematic surveys sponsored by professional societies, provide the statistics of record for tracking industry developments.

Many of the new integrating organizations, as collections of otherwise-licensed health professionals and facilities, do not fall into this paradigm. Only two states separately regulate PHOs and professional societies are only now forming around these new organizational forms. Existing directories of PHOs, for example, are not comprehensive (Ernst & Young 1995). In the short run, cooperative survey efforts with hospital and physician professional societies might be the most efficient way to collect information on the extent and spread of these new organizations. Alternatively, since payment to these new organizations flows largely through insurers, surveys of insurers might produce information on payments to intermediate entities such as PHOs.

Finally, Medicare cannot remain unchanged if the markets and organizations with which it deals are evolving rapidly. Given the growth in managed-care organizations, Medicare currently risks becoming the last large fee-for-service program with unrestricted choice of physician. Medicare may find a growing proportion of its care delivered not by a cross-section of physicians, but by the physicians who were left out of or did not wish to join these new integrating organizations. This could result in a suboptimal mix of care being delivered to Medicare beneficiaries and could create a significant cost shift from the private sector to the Medicare program. This only increases the pressure for Medicare to find ways to expand its presence in the managed-care sectors of the market (see Chapter 5).

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NETWORK DEVELOPMENT IN RURAL AREAS

The trend toward greater integration of providers and services seen in urban health care markets holds implications for the country's rural areas. Rural communities face a particular challenge adapting to this transformation in the delivery system because they often have relatively smaller populations, fewer local providers, and more fragile economies. Any disruption to providers or other related employees caused by consolidating or eliminating equipment and facilities is particularly evident in rural areas. These concerns have prompted efforts by federal, state, and regional organizations to coordinate rural health services so that rural residents will continue to have adequate access to care. Where appropriate, these entities are promoting innovative delivery arrangements, including networks.

The term "network" is used for a wide variety of health care organizations and provider affiliations. These range from fully integrated service delivery systems to less formal coalitions of providers. They may or may not use a capitated payment structure. Historically, there have been relatively few rural service delivery networks or managed-care health plans, despite arguments that these improve access to care for rural residents. More recently, however, some rural areas have seen stepped up networking activity by providers and insurers alike.

In rural areas, these activities are the result of two major forces. One is the strong motivation for survival and maintenance of locally available services and facilities. Coordinating these resources regionally and facilitating their interaction with more distant providers is seen as paramount to ensuring access to appropriate medical care and keeping service delivery in rural areas. Collaboration has been especially vital to rural hospitals, many of which have averted financial insolvency through an array of networking activities. Among these activities are forming multihospital cooperatives, limiting inpatient services by establishing referral links with larger hospitals, and developing integrated systems of care.¹ Because hospital closure can exacerbate shortages of rural providers and damage local economies, government and private efforts of the past decade have focused on hospitals' attempts to survive by consolidating and forming networks.

Another force driving network development is the prospect that managed care will further expand into rural areas as federal and state governments join employers in attempts to control health costs. This trend has been reinforced by state-level reform plans that feature managed care, among them Medicaid demonstration programs, and by recent proposals for national health care reform. In some cases, networking in rural areas is viewed as a way to protect local interests and autonomy under contracting arrangements with urban entities or payers.

¹ As a result of a combination of factors, including competition from urban providers, declining use of inpatient services, and changes in payment structures brought about by implementation of Medicare's prospective payment system, more than 400 rural hospitals (14 percent) closed between 1985 and 1992, whereas the number of urban hospitals increased by 2 percent (ProPAC 1994).

Anecdotal evidence indicates that networking activities potentially could improve rural health care by coordinating the provision of services, enhancing quality through clinical linkages, and preserving local providers. It is not clear, however, that networks are applicable in all areas or that the efforts involved in their formation are necessarily worthwhile. Partly because of the variable nature of health care markets, few formal evaluations of these rural systems have been performed. Policy development could therefore benefit from further information pertaining to the scope of rural network services, whether such collaborative arrangements effectively improve the quality of service delivery and access to care, and the financial impact of these networks on communities and providers. In the interim, given that rural areas may face difficulty adapting to the changing market environment, it is important that public policies affecting network development are coordinated in a manner that is sensitive to rural concerns.

This chapter begins by providing background information on networking activity in rural areas. It then examines how managed-care arrangements have affected the development and expansion of these networks. Federal and state policies related to managed care, such as state health reform initiatives and the redirection of state Medicaid programs toward managed care, are presented. The chapter then describes the federal and state efforts to explicitly coordinate rural health care providers and services. Finally, additional policies whose coordination can influence the development of rural networks are identified. Among these are policies pertaining to Medicare and Medicaid payment, recruitment and retention of providers, maintenance of publicly assisted providers, and antitrust enforcement.

RURAL ENVIRONMENT

The diverse and evolving nature of rural network formation makes it difficult to document the extent of activity or to characterize existing network structures with much accuracy. No formal surveys exist that systematically describe current numbers and types of rural networks. Information on rural network development and relevant policy issues can be obtained from published case studies, however, as well as from interviews and documents provided by network participants. The Commission has relied on a literature review, as well as some primary data, to describe the current rural networking activities.

Network Development Patterns

The form of rural provider networks varies by the mix of providers involved and the degree to which the participants cooperate in service delivery. Networks may consist of informal coalitions, management contracts with urban providers, formal horizontally integrated networks of a single type of provider, or vertically integrated systems that include a range of providers. The most common form of rural network appears to be made up of similar types of providers that have joined together to address common problems or to respond to capitated or other payment opportunities. Rural networks that are fully integrated for service delivery and those providing a complete range of primary care and acute care services are relatively uncommon (Moscovice et al. 1991; Christianson et al. 1986).

Networks are not necessarily stable organizations; they may continue to evolve or dissolve once they are developed. Many go through early organizational stages and then stop short of actually implementing plans for integration. Others may start out small and grow larger in both service area and number and diversity of participants. Although an evolutionary pattern has not been clearly established, one method of development is the network of similar types of providers that broadens its scope of services and membership and eventually becomes vertically integrated, offering a broader range of services and more advanced technology. (Moscovice et al. 1993; Van Hook and Rosenberg 1993). The Marshfield Clinic in Wisconsin and Geisinger Health Systems in Pennsylvania are two well-known examples of vertically integrated delivery systems that began as rural group practices and gradually expanded into surrounding communities over several decades.

Problems that generally impede health care delivery in many rural areas also affect rural health networks. Some of these problems stem from geographic isolation, such as longer travel time to services, shortages of health care professionals, and lack of emergency medical systems. Others reflect demographic patterns, including small patient populations and disproportionate numbers of elderly and uninsured residents. In addition, rural areas have relatively few available means to coordinate health care resources, create information systems to measure outcomes, and ensure access (OTA 1990). Consequently, it may be hard to develop networks because of difficulties in obtaining adequate startup resources, overcoming distances between providers, securing support from providers and communities, and effectively spreading risk. In addition, actors in rural areas are particularly sensitive to issues of antitrust, because some markets may be unable to support the multiple networks necessary to minimize the prospects of challenges under antitrust laws.

Role of Public Providers

To address the obstacles to care for rural populations, the Medicare and Medicaid programs offer enhanced reimbursement for qualifying rural providers.² This compensation is accomplished through a series of programs, including those directed at hospital facilities such as regional referral centers, sole community hospitals, and Medicaid disproportionate share hospitals. Other programs applicable to other types of providers include rural health clinics, federally qualified health centers, and community or migrant health centers (CHCs/MHCs). Additionally, physicians providing services in health professional shortage areas (HPSAs) are eligible for 10 percent bonus payments under Medicare, while nurse practitioners and clinical nurse specialists receive direct payment from Medicare for services delivered in nonmetropolitan areas.

Public clinics and health centers generally lack the resources or expertise needed to initiate formal networks. Nonetheless, they have played a role in developing and maintaining a continuum of care in rural areas by affiliating with other providers and health centers in nearby communities, as well as by becoming members of larger networks. In keeping with the mission of federally funded providers, many of the networks initiated by CHCs appear to be informal coalitions of local providers or organizations formed to better address the

² Because underserved urban areas face many comparable health care delivery problems, urban providers are similarly eligible in some cases.

health care needs of specific populations (Bureau of Primary Health Care 1992). Some rural CHCs, however, have developed more comprehensive integrated systems of care through arrangements with area hospitals, local health departments, and other organizations and providers (Wilhide 1992).

MANAGED CARE

Although managed-care arrangements may not be appropriate for all rural areas—particularly those that are most remote—their increasing use by employers and state governments has introduced managed care and accompanying new concerns to rural communities and their providers. Few rural networks have the necessary capital to invest in developing capitated plans. Instead, local providers more often are forming networks to enable them to act as a single coordinated system when contracting opportunities with payers arise. Rural communities and providers generally view this as a preferable alternative to provider networks organized by urban-based managed-care plans, which may not necessarily consider the community needs and the local economy.

Rural Activity Related to Managed Care

The number of managed-care plans in rural areas has grown in recent years, though market penetration appears to remain relatively low (Christianson et al. 1986; Korczyk 1991; Wellever and Deneen 1994).³ While this increase is largely because urban plans have expanded into rural markets, it is also due to the creation of some rural plans. Rural areas closer to urban communities and located in states with relatively high penetration of managed care have, predictably, experienced most of the market-driven activity (Christianson and Moscovice 1993; CRS 1994). In some cases, employers have brought managed care to these areas by contracting with health-care management companies to assemble networks.

As a result of the scarcity of fully integrated rural networks, managed care arrangements are frequently occurring through urban-based plans contracting with rural independent practice associations (IPAs). IPA arrangements—whereby providers join together for bargaining purposes, but maintain their independence in practice—appear to be increasing correspondingly among rural providers. This is the result of providers organizing in response to managed-care plans' entry into the market, as well as providers assembling and then seeking a health plan with which to affiliate. There are also some examples of rural-based IPA models, such as the HMO of Wisconsin, sponsored by consumer cooperatives or hospital networks. Once developed as a health maintenance organization (HMO), potential exists for further expansion by merging with a large insurer or coordinating with other provider networks (Size 1993).

As urban HMOs enter rural markets, they have faced challenges in building service networks and negotiating with providers. Rural providers are often opposed to the additional administrative

³ By 1993, more than 300 urban plans (approximately half) included rural areas as part of their market areas, although only 10 health maintenance organizations were primarily rural plans (Serrato and Brown 1992; GHAA 1994).

requirements of managed-care plans; moreover, they may not want to expand their already busy practices. To compensate for these difficulties and to address the small population base, which may not lend itself to capitation, payers often choose to implement fee-for-service provider payment, particularly in the early stages of plan development. Another strategy has been to establish primary care clinics in small communities, directing patients needing more specialized care to urban locations (Taylor 1994). Encouraging community members to be involved in planning and development has proven important in these efforts.

State Reform

Several states have enacted reform strategies that will create a structure for managed competition, provided that recent changes in the states' leadership do not result in major modifications to the current legislation. Florida, Washington State, and Minnesota have implemented reforms that specifically address the needs of their rural communities. For example, Florida's Health Care and Insurance Reform Act of 1993 authorizes planning grants to develop rural health networks in four areas. It is too early to determine whether these networks will eventually contract with insurance companies or HMOs, as envisioned by policymakers (Duncan et al. 1994).

Rather than focusing on rural network development, Washington's program is related to community self-assessment. The enabling legislation has provided funding so that communities can determine their ability to adapt to the proposed state system, which in some cases will lead to the development of networks. The state legislature has passed other provisions that address provider recruitment and retention in rural communities.

Minnesota's health reform legislation addresses rural concerns through planning grants for community health boards and other, more specific provisions. The legislation assumes that competition will generally occur among integrated service networks (ISNs). These will be responsible for delivering, at a capitated rate, a full array of services to residents of a particular area. To accommodate rural locales that may be unable to meet the same requirements as ISNs because of their small population base, the legislation also has special measures that apply to community integrated service networks (CISN). CISNs are, for instance, exempt from a number of state provisions, including certain ones in the state HMO law. They are also subject to somewhat less vigorous regulatory control, and will be licensed three years before other networks to protect them during early stages. How this legislation will affect the development of networks into rural areas of contiguous states is unknown (Hartley et al. 1993).

Medicaid Managed Care

The growing interest of states in shifting Medicaid beneficiaries into managed-care arrangements has motivated rural providers to consider developing new systems of care to serve this population. Further, the Medicaid program is a likely vehicle for those states interested in introducing managed care to rural areas. Statewide Medicaid demonstrations approved under Section 1115 waivers generally rely on managed-care plans, ranging from prepaid or capitated models to primary care case

management (PCCM) models. The PCCM approach, whereby primary care physicians receive a flat fee to coordinate the beneficiaries' care, in addition to fee-for-service payments, appears to offer the greatest potential for many rural areas and is sometimes viewed as a first step toward encouraging the development of networks of care.

Arizona's Medicaid program, which has been functioning under a Section 1115 waiver since 1982, is one example where managed care seems to be working in rural areas. The state is largely rural, with more than one-third of its Medicaid population living in rural communities. Initially, the program used fee-for-service payment in some rural counties. It now awards capitated contracts to plans in all counties, with multiple plans bidding in each county (Rothstein 1994; Pollack and McCall 1994). The techniques used to form networks of providers and the provider payment methods vary across plans.

Other state Medicaid programs are also expanding managed-care enrollment to rural areas, yet most states do not appear to have explicit strategies outlined for incorporating rural areas into capitated plans. For some states, the Health Care Financing Administration (HCFA) has specified maximum travel distances or times and patient load requirements as terms and conditions for access under the waivers. Oregon, for example, requires having at least one physician for every 1,200 Medicaid beneficiaries in a county before mandating managed-care enrollment (GAO 1993). In 1991, New York passed a state law that included incentives to move half the Medicaid population from fee for service into managed care within five years. Although some see Medicaid managed care as a viable market opportunity, the program has spread slowly in New York's rural areas (Horwitz et al. 1994).

INITIATIVES THAT SUPPORT NETWORKS

Helping rural networks to overcome some of the obstacles common to rural health care delivery is seen as one facet of the complex process related to maintaining access to care for rural residents. With that concept in mind, past government and private sector efforts to develop coordination among health care providers have devoted significant attention to downsizing inpatient units and forming linkages between hospital facilities in an attempt to stabilize the supply of available rural providers. Other programs have supported specific needs of different providers or communities, through such efforts as provider recruitment or technological improvements. More recently, policies and assistance to develop rural integrated delivery systems have been initiated under the assumption that rural communities will need support during the transition to a managed-care environment.

Support for network development often comes in the form of grants or loans. These include federal grants distributed to states and providers, state grants disbursed through state agencies, and funding from private foundations. Grant programs must be carefully administered to allow the networks to be financially self-sufficient after the grant period expires. Federal and state agencies have, in some cases, attempted to create a sustainable source of income for networks by modifying Medicare and Medicaid regulations and reimbursement policies.

Federal Programs

A limited number of federal programs contribute to the development and maintenance of networking relationships between rural providers (Table 12-1). Several of these do not focus directly on forming integrated networks. Rather, the programs may facilitate their development by strengthening parts of the health system or certain providers. By bringing a few providers together and creating economic stability, these programs can serve as a catalyst for small networks to develop more comprehensive

Table 12-1. Federal Programs That Support Network Development

Program	Description	Eligible States	Administering Agency	Year Initiated
Rural Health Transition Grants	Grants to small rural hospitals	All	HCFA	1987 ^a
Essential Access Community Hospital/Rural Primary Care Hospital Program	Grants to states and hospital facilities; modified Medicare requirements and payment rates	California Colorado Kansas New York North Carolina South Dakota West Virginia	HCFA	1989 ^b
Rural Health Outreach Grants	Grants to consortia of at least three providers	All	Office of Rural Health Policy, HRSA	1991
State Rural Health Network Reform Initiative	Grants to state offices to assist with network development	Florida Minnesota Mississippi Nebraska North Carolina Washington	HCFA	1994
Rural Managed Care Centers	Grants to university-based centers to assist with network development	Arizona Iowa Maine Nebraska Oklahoma West Virginia	AHCPR	1994
Integrated Service Network Development Initiative	Grants to community health centers that are collaborating with one or more providers	All	Bureau of Primary Health Care, HRSA	1994

SOURCE: Physician Payment Review Commission compilation of published and unpublished information from the Health Care Financing Administration (HCFA), the Health Resources and Services Administration (HRSA), and the Agency for Health Care Policy Research (AHCPR).

^a This program was authorized by OBRA87 and modified by OBRA89. Grants were first distributed in 1989.

^b This program was authorized by OBRA89 and modified by OBRA90. Grants were first distributed in 1991.

linkages when the opportunities arise. In some cases, providers have used funding from more general rural health grant programs to create health delivery networks. Some programs have allowed latitude for diversity across states, whereas others have encouraged a single model. Additionally, recently initiated programs depend upon state and community cooperation to develop more integrated systems of care. The continued funding for several of these federal programs is currently under review in Congress's budget process.

Several agencies within the Department of Health and Human Services are involved in implementing these programs (Table 12-1). The Office of Rural Health Policy serves a central role in organizing federal support through outreach grants available to all states for rural network formation. HCFA administers three programs that distribute grants to eligible states and also handles state requests for waivers from Medicare and Medicaid requirements to allow flexibility for hospital and managed-care initiatives. The Agency for Health Care Policy and Research (AHCPR) and the Bureau of Primary Care within the Health Resources and Services Administration also administer grants for network development.

Rural Health Transition Grant Program. This program issues grants to small rural hospitals to support their ability to provide care to Medicare beneficiaries. Focusing on improvement of outpatient and emergency services and health professional recruitment, the program encourages service coordination among providers that can lead to the development of alternative delivery systems such as rural health networks.

Essential Access Community Hospital/Rural Primary Care Hospital Program. One of the most visible federal initiatives in bringing rural providers together is Medicare's Essential Access Community Hospital/Rural Primary Care Hospital (EACH/RPCH) program, which was authorized under the Omnibus Budget Reconciliation Act of 1989 (OBRA89) to offer rural hospitals an alternative to closure. Based on approaches in Montana and other states, the program uses downsizing and networking strategies. Medicare hospital requirements are modified to establish a limited-service facility called a Rural Primary Care Hospital (RPCH). The RPCH establishes transfer, referral, and other types of agreements with an Essential Access Community Hospital (EACH), which is a full-service hospital that supports the RPCH for patients requiring more than primary care and basic inpatient services.

Grant funding is provided to seven states for rural health planning activities such as identifying potential networks, and then establishing and designating the EACHs and RPCHs. Additional grants are distributed to facilities for determining whether conversion is wise and, if so, to help support the process. The program also provides for a sustainable source of funding once the networks are established by offering Medicare cost-based reimbursement for RPCHs and payment as sole community hospitals for EACHs. To date, 10 networks have been approved (Weisgrau 1995).

The EACH/RPCH program has helped stimulate rural networking activity in participating states and may facilitate coordination for cases where support from a large hospital is critical to the success of a smaller one. Some aspects of program administration have slowed its implementation,

however. Participating states and facilities claim that some of the certification requirements do not allow sufficient flexibility to respond to differences in local environments (Campion et al. 1993; Felt and Wright 1993; Wright et al. 1994). In particular, concerns have been raised about specified conditions on the allowable number of hospital beds and length of hospital stays which may limit the number of facilities that this program can potentially help (Christianson et al. 1993; Hilsenrath et al. 1991).

Additional legislation has addressed some of the initial problems with program rules. These include allowing networking agreements to cross state boundaries, permitting designation of EACHs located in urban areas, and slight loosening of the allowable lengths of hospital stays. The recently enacted Social Security Act Amendments of 1994 (P.L. 103-432) extended the authorization for the grants program through 1997 at its current funding level, but did not include many other program modifications that have been proposed and require legislation to be implemented.

Legislative proposals to expand the EACH/RPCH initiatives into a permanent national program open to all states have been introduced in the Congress.⁴ Although some states have developed similar initiatives, if they relax hospital certification requirements to the same degree that the federal program does, participating facilities may forfeit their ability to bill Medicare.

Rural Health Outreach Grant Program. The Rural Health Outreach Grant program provides funding to all states for the formation of consortia of at least three providers, with the principal provider being in a rural location. A primary objective is to respond to unmet health needs. The initiatives therefore generally address specific health issues, leading more frequently to the development of smaller networks, rather than comprehensive formal provider networks.

State Rural Health Network Reform Initiative. As part of a three-year program, HCFA recently selected six states for grant funding to develop innovative rural health financing and delivery systems. This program emphasizes community involvement in the creation of rural health networks. The funds will be distributed to a relevant office in each state to be used for educating providers and communities, providing technical assistance on legal and financial issues, analyzing the need for Medicare and Medicaid waivers, collecting data, and directly funding community organizations.

A goal of this program is to enable states to develop rural health networks and address rural health issues within the context of broader statewide health reform initiatives. Grant-supported activities will differ to reflect states' progress in system development. In Minnesota, for example, the grants will be used for developing rural community-based network models to function under the state health reform plan. In Mississippi, by contrast, the grants will support a grass-roots planning effort to develop a hospital-based network.

⁴ The Rural Emergency Access Care Hospital Act of 1995 (S. 210), introduced on January 12, would allow qualifying rural hospital facilities to downsize to a "rural emergency access care hospital."

Rural Managed-Care Centers. In response to a congressional directive, AHCPR recently awarded grants to support demonstrations of innovative ways to deliver health care services in rural areas. Five designated rural centers based at universities in Arizona, Maine, Oklahoma, Nebraska, and West Virginia received the grants. The intent of the program is to build on innovations like managed care that have been introduced in urban areas through market forces, but that are generally not available in rural areas. States where relevant managed-care activities are occurring in regional health markets were therefore selected to participate.

The plans for the demonstrations vary widely by state. Most centers will work with other organizations in the area to provide technical assistance, or facilitate community efforts to engage outside contractors to provide information on issues such as legal concerns, marketing, and practice management. The Nebraska center's activities, for example, will be managed by organizations within the state and its neighbor, Iowa. Several demonstrations will focus on developing information systems to provide data on health care costs and other data to permit monitoring quality and performance.

Integrated Service Network Development Initiative. The Bureau of Primary Health Care is awarding grants to federally funded urban and rural CHCs that are collaborating with at least one other health care provider or entity. The grants are to support the formation of integrated delivery systems that will ensure access for the medically underserved and that will eventually contract under managed care. Of more than 100 networks being developed, about half encompass rural areas.

State Programs

States have also played a continuing role in the support of rural health care initiatives. Each state operates a state office of rural health, due largely to a federal matching grant program. The roles these offices have in shaping rural health care delivery range from hands-on technical assistance with community-operated medical centers to using local, state, and federal resources to coordinate interests of various groups (NRHA 1993). Variations in state approaches reflect the diversity of their rural communities, as well as differing state policies regarding what form this support should take. Several state governments are playing a significant role in assisting providers and communities with rural network formation. In these states, mechanisms such as planning grants, matching funds, loan guarantees, technical assistance, and revising regulatory policies have been employed.

In addition to rural policies and programs that have been incorporated as part of statewide health reform plans, states—with assistance from federal programs and private foundations such as the Robert Wood Johnson Foundation—are using other policies and projects to bolster the development of rural networks. For example, West Virginia's experience with the EACH/ RPCH program led the state to secure foundation funding to develop additional rural networks that will incorporate providers other than hospitals. Such activity is increasingly relevant as the state employees' health benefits programs begin to focus on managed care.

New York has taken a direct role in stimulating the development of rural health networks to retain community resources and expedite rural participation in Medicaid managed care. The state has

concentrated on providing resources to promote network development, with the federal EACH/RPCH program serving as a complement to state-initiated activities. The largest and most recent activity is the New York State Rural Health Network Development Program, established through legislation in December 1993. Based on a successful demonstration program, this initiative offers planning, implementation, and start-up grants; defines new facility types that are similar to the EACHs and RPCHs; provides antitrust protection in some circumstances; and establishes a permanent reimbursement stream for some network providers once the networks have become fully operational. All networks are required to include primary, acute, and emergency medical services, with most also including public health service and long-term care providers.

Kansas is also emphasizing provider network formation to maintain and improve rural health service delivery. The Kansas Hospital Association and private philanthropic organizations, including the Kansas Health Foundation, have been instrumental in supporting the development of several rural health initiatives. The federal EACH/RPCH program in Kansas is viewed as one point on a continuum of integrated service network models. Providers other than hospitals are encouraged to become involved in the networks. Specific attention is given to involving the local communities in the planning and development of these networks. For example, one project is building integrated systems of care in 10 rural communities by involving working groups of citizens. The experience of this project is intended to provide information about the characteristics of rural integrated health systems that communities can adapt to their local circumstances.

Several states have also experimented with alternative delivery models, not all of which may be considered networks. They are, however, built on the concept of downsizing larger hospital facilities. For example, Montana's Medical Assistance Facility demonstration (a precursor to the federal EACH/RPCH program) defines a limited service hospital for frontier areas. Under a Medicare waiver, facilities receive cost-based payment for inpatient services, but are not explicitly required to form networks. Several other states have developed similar facilities by relaxing state hospital certification requirements. Some of these do include network relationships. Colorado, for example, has sponsored a program to develop network linkages between facilities providing ambulatory primary care and those furnishing inpatient services.

POLICIES THAT COMPLEMENT NETWORK DEVELOPMENT

A broad range of federal policies foster and support rural providers' ability to adapt to the changing market environment. A coordinated, cohesive set of these policies could create a strategy for strengthening rural service delivery. Policies that have a bearing on rural networks are particularly relevant to the extent that they can help rural communities address access concerns resulting from the limited supply of providers and the economic dependence upon them. Besides direct loans, grants, or technical assistance, some areas in which federal or state actions could support or guide rural networks include changes in Medicare payment policy, recruitment and retention of providers, maintenance of existing programs to facilitate access, antitrust laws, and Medicare fraud and abuse statutes.

Medicare Payment

The large proportion of elderly residents in rural areas makes rural providers particularly sensitive to Medicare payment policies.⁵ Difficulty in incorporating the Medicare population into a network's patient base can therefore impede network activities. Currently, Medicare depends on various payment methods to compensate different types of providers. Most networks are not recognized as providers, although their individual members may be. As a result, payment policies often do not allow networks of providers to receive Medicare payments directly and then divide them according to internal needs. This may limit the network's ability to cohesively coordinate providers and enforce quality controls. The informal nature of many of the rural networking arrangements contributes to the difficulty in directing payment directly to networks. The situation is further compounded by problems with Medicare's method of determining payments to HMOs, which may discourage rural HMOs from entering into Medicare risk contracts. The Commission's recommendations to modify methods for determining capitation payments under Medicare addresses these problems (see Chapter 5).

Network development would also benefit by examining payment options for telemedicine and standards for linkages with urban and other large centers (see Chapter 7). Providers within rural networks are often dependent upon communication systems to overcome the distances between them. Further information is necessary to make insurance coverage decisions about these applications.

Rural provider networks may also be affected by limitations of the definitions of underservice, which Medicare and other public programs rely on for providing enhanced reimbursement. Providers located in areas designated as HPSAs are eligible for rural health clinic certification, bonus payments under Medicare, augmented Medicare payment rates for certain nonphysician practitioners, and additional state-level programs. HPSAs are defined largely based on the physician-to-population ratio of the area.⁶ Because some areas can lose their designation and thereby program benefits if additional physicians begin to practice there, this requirement can create incentives to actually limit, rather than expand, the recruitment efforts of larger rural networks. To reduce these incentives, the Commission has previously recommended allowing areas that lose HPSA status because of an increase in physicians to continue receiving bonus payments for another three years. The Commission also recommended extending the bonus payments to counties that exceed a threshold poverty rate (PPRC 1992).

If trends toward greater use of networks or systems of care continue, and a full range of services does not necessarily need to be provided locally, the number of providers located in a given area may become a less important indicator of underservice. Instead, access to a point of entry into a larger

⁵ Fully 46 percent of gross patient revenues of hospitals in rural areas are attributable to Medicare, compared with 40 percent in metropolitan areas (AHA 1994). Additionally, rural physicians report spending an average of 37 percent of their total patient care time providing care to Medicare patients, whereas urban physicians report an average of 29 percent (Project HOPE/Gallup 1994).

⁶ Three criteria are used to define the HPSAs. First, the geographic area must be rational for the delivery of services. Second, the area must have either a population-to-primary care physician ratio of at least 3,500:1, or a population-to-primary care physician ratio of less than 3,500:1 but more than 3,000:1 as well as unusually high needs for primary care services or insufficient capacity of existing primary care providers. Third, resources in contiguous areas must be shown to be overutilized, excessively distant, or inaccessible (HCFA 1980).

system of care may become more critical. It may therefore be useful to establish a minimum set of health services that needs to be locally available, provided that access to more specialized care can be reached from that point and the quality of care is maintained.

Merging of provider entities raises other payment related issues as well. Large networks may span more than one Medicare payment area, resulting in different payment rates for services provided in different areas. This payment differential can be particularly problematic for rural networks that rely on urban specialists to visit rural clinics. The payment rate in the rural area is often less than what the physician would receive if the rural beneficiary traveled to the urban location. This could either decrease the incentive for physicians to affiliate with rural providers or require patients to travel further to receive care.

Recruitment and Retention of Providers

In areas where a shortage of local providers is a significant barrier to health care access, the further loss of providers could be devastating. There is fear that, as competition for primary care providers increases among urban-based managed care organizations, those located in the rural areas will be lured away. Further, by directing treatment referrals to urban rather than rural facilities, managed-care plans could potentially drive rural providers to bankruptcy, causing a chain reaction that could further drain the local provider community. Although reports are only anecdotal at this point, recruitment and retention efforts remain vital for ensuring that rural areas have the necessary provider base to offer primary care to rural residents and also to permit the development of networking arrangements.

Rural provider networks, including those affiliated with urban organizations, are often viewed as opportunities to preserve a rural provider base. The backup support and referral system offered by networks may make the rural practice environment more desirable. Linkage to emergency medical services can be particularly important for easing burdens of rural practices. Additionally, networks may have the resources available to assist with recruiting providers, and can extend the provider base through the use of nonphysician practitioners. For example, if state law allows, larger networks could staff remote satellite clinic sites with nonphysician practitioners, bringing primary health care to areas that may not have a physician. The potential infrastructure that networks provide also may increase their attractiveness to managed-care plans interested in extending their markets. Such affiliation with managed care plans offers the potential to further extend provider recruitment efforts for rural areas.

Maintaining Existing Public Providers

Concern has been raised about the impact that the statewide Medicaid waivers will have on public providers, which are an important source of care for many rural areas (see Chapter 8). Such providers are frequently dependent upon Medicaid payment to supplement the provision of uncompensated care to uninsured populations. This is particularly problematic for federally qualified health centers and rural health clinics, which no longer receive cost-based payment under some Medicaid waivers. In rural areas with provider shortages, the greatest concern is not that these providers will be denied the ability to participate in plans, as has been the case in urban areas, but rather that they will be offered

payment rates below the level needed to maintain operations. For centers that do not participate in the plans, there is the potential that Medicaid enrollees will continue to seek care from them, yet the facility will not be compensated by the states. The formation of a health plan by a coalition of community health centers that contracts with the state of Washington is an attempt to use networks to lessen the impact of this problem.

This problem for rural community-based providers is not specific to Medicaid arrangements and may extend to other managed-care arrangements. As plans such as those covering state employees or large businesses become increasingly dependent on managed care, rural residents may continue to receive care at the local clinic, rather than traveling to the nearest provider affiliated with their plan. If the local clinic does not have a contractual arrangement with the plan, it might face difficulty in collecting compensation for the care. "Any willing provider" or "essential community provider" provisions have been advocated to allow rural residents to receive their care locally and still belong to a larger plan (see Appendix D). Even with such provisions, it is not clear whether public providers will receive adequate compensation to support their facilities. Such arrangements also run the risk of providing incentives for all rural providers, rather than only those serving the underserved, to seek public provider status. They may also limit networks' ability to compete.

The state reform plan in Minnesota, for example, attempts to address this issue by requiring managed-care plans to contract with all interested community clinics at rates no less favorable than those offered to other providers. Additionally, all plans must draw at least 20 percent of their enrollees from government-run programs, including Medicaid, which is a key patient base for most publicly assisted providers. The effectiveness of these policies is unknown, however.

Health professions education programs can play a role in bringing additional health professionals to rural areas. The use of public providers and rural networks for health professional training has been suggested as one technique to support these providers and improve the availability of physicians and other practitioners. Additionally, the Rural Medical Education Demonstration Project, authorized under OBRA87 and OBRA89, supports 10 pilot projects under which hospital residency programs receive Medicare graduate medical education indirect and direct payment for the work of residents in rural hospitals. The rural hospitals and their clinics receive the benefits of the residents' service as well as the possibility of improved recruitment and retention for their facilities.

Antitrust Provisions and Medicare and Medicaid Fraud and Abuse Statutes

Rural networks may be particularly vulnerable to violation of antitrust provisions and Medicare and Medicaid fraud and abuse statutes. Some rural areas cannot support more than one provider network, because the scarcity of providers and the small population base make it necessary to combine all available resources in order to deliver a complete range of services. Yet the ability of rural providers to plan and operate rural health networks cooperatively in these areas is potentially limited by constraint of trade challenges. This situation recently surfaced in Wisconsin where, in a civil case, a

jury found in favor of a claim by Blue Cross/Blue Shield United of Wisconsin that the Marshfield Clinic and its HMO Security Health Plan have attempted to monopolize health care and control prices in rural areas of the state. The legal costs of defending a network's mission and approach can be daunting and may detract from its ability to ensure access to care in those areas. The fear of antitrust liability may also retard development of collaborative activities if providers are unclear about what cooperative arrangements are considered legitimate (see Chapter 13).

Antitrust enforcement depends on a clear understanding of what constitutes an allowable network. Based on the assumption that rural health network collaboration is intended to reduce costs and improve quality and access, rather than raise prices and costs, several states have passed legislation under the state action immunity doctrine to protect rural providers involved in approved networking arrangements. To provide active oversight of the networking activities, in compliance with federal law, states generally require networks to meet specific criteria. Some states have therefore provided antitrust protection for the rural networks within the context of a larger grants program or reform plan that provides such a definition. Many of these state provisions have been developed only recently and have yet to be tested in the rural markets (Casey et al. 1994; GAO 1994).

Agreements among network participants may also be limited by Medicare and Medicaid fraud and abuse statutes. These laws prohibit providers from offering or receiving anything of value in exchange for securing any business reimbursable under Medicare and Medicaid. If a hospital helps recruit primary care professionals to a network, and there is an implication that in return the network will send all its patients to the hospital, this may violate the fraud and abuse statute. Integrated provider networks could therefore benefit from explicit clarification of these laws.

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PHYSICIAN NETWORKS AND THE ANTITRUST LAWS

Both demand and supply sides of the health care delivery system are undergoing significant consolidation. Traditional markets, where physicians' services are furnished by individual providers operating independently, are being supplanted by markets with fewer, larger, and more integrated managed-care organizations. Between 1988 and 1993, for example, the share of employees enrolled in managed-care plans increased from 29 percent to 51 percent (Iglehart 1994). This has occurred in part through the expansion of insurer-driven systems such as health maintenance organizations (HMOs). At the same time, the organizational structure of the delivery system has also changed. Provider joint ventures, such as physician-sponsored networks and physician-hospital organizations (PHOs) are forming in increasing numbers (see Chapter 11).

Some physicians have expressed concerns about potential inflexibility and bias of the federal antitrust laws and enforcement policies in light of this evolution of health care markets. These laws and enforcement policies are designed to maintain a competitive environment in markets. They may, however, work best in industries where standard market analysis of the pro- and anticompetitive impacts of joint ventures is readily applicable. The potentially unique nature of the health care industry has brought into question the appropriateness of these laws and policies for health care markets.

Concerns about the applicability of the antitrust laws and policies are most acute with respect to physician-sponsored networks and other joint ventures. Much of the debate on this issue has focused on the need for safe harbors for physician-sponsored networks, granting them immunity from antitrust prosecution.

Three arguments have been put forth for establishing safe harbors from antitrust law enforcement for physician-sponsored networks. First, safe harbors would clarify which activities would not be subject to antitrust enforcement actions. Doubts about which forms of joint ventures would (or should) be considered legitimate under current law may retard growth of activities that might on the whole be beneficial to consumers. Second, it has been argued that safe harbors are required to allow physicians to balance the increasing market power of insurers in establishing payment rates. Finally, they might be required to correct for alleged biases in antitrust law enforcement against physician-sponsored joint ventures.

A number of arguments have also been made against creating safe harbors. First, the very limited evidence currently available does not indicate that the risk of antitrust challenges has caused widespread problems in the formation of networks. Second, physician-sponsored ventures are not subject to special scrutiny but, in fact, are treated similarly to joint ventures among competitors in other

industries. Third, if insurers were successful in exercising market power to reduce payment rates below competitive levels, they would be subject to prosecution under the antitrust laws. Fourth, creating safe harbors, especially in the absence of good information about which activities are truly beneficial, may channel markets into directions that are ultimately not in the best interests of consumers.

After careful consideration, the Commission has concluded that the available evidence of problems is not sufficient to warrant creating safe harbors or other exemptions from the antitrust laws for physician-sponsored networks at this time. Amending the antitrust laws is a serious step that should be undertaken only in the face of compelling evidence that change is required. The limited available factual evidence, however, does not currently suggest the widespread existence of problems.

Several steps have been taken by the principal antitrust law enforcement agencies to address the concerns of physicians. In the last 17 months, the U.S. Department of Justice (DOJ) and the Federal Trade Commission (FTC) have released a series of enforcement statements intended to clarify which instances would not be subject to investigation (i.e., safety zones). In addition, the agencies have an ongoing program of advising interested parties about the potential illegality of proposed joint ventures. The Commission applauds these steps.

It is the Commission's view, however, that additional steps may be necessary to address some of the issues raised by physicians. The arguments presented for altering the antitrust laws point to some potential shortcomings with the application of these laws to health care markets, but there is surprisingly little factual information to either support or refute these alleged problems. The enforcement agencies can and should play a critical role in the collection and dissemination of information on these issues. Further, in light of changes in the structure of health markets, it is the Commission's view that the enforcement agencies should consider alternatives to relying on the percentage of physicians in a geographic market for defining safety zones from antitrust challenge.

RECOMMENDATIONS

The Congress should direct the enforcement agencies to gather and make available to the public information on antitrust problems brought about by the evolving structure of health care markets. Issues that should be addressed include evidence of anticompetitive behavior of insurers in establishing physician fee schedules and unnecessary deterrence of the formation of potentially beneficial physician-sponsored networks.

Given the rapid changes in the organization and delivery of health services, the enforcement agencies should consider the appropriateness of alternative measures of market concentration.

At this time, there is not sufficient evidence to warrant granting physician-sponsored networks exemptions from potential challenges under the antitrust laws.

This chapter begins with a brief overview of the antitrust laws and their application to health care markets. A discussion of the key issues motivating the debate for reforming the antitrust laws is then

presented. The third section contains the Commission's assessment of the arguments for and against modifying the antitrust laws. The final section contains a discussion of the areas where the Commission recommends that the enforcement agencies should focus their data gathering and dissemination efforts.

BRIEF OVERVIEW OF ANTITRUST POLICY IN HEALTH CARE MARKETS

The intent of the antitrust laws is to benefit consumers by maintaining a competitive environment for the production and distribution of goods and services. The antitrust laws attempt to accomplish this through a combination of outright prohibitions of certain practices that have been deemed blatantly anticompetitive and case-by-case analyses of practices that may on the whole be either pro- or anticompetitive, or competitively neutral.

Antitrust Laws

Both the Federal government and the states enact and enforce antitrust laws. For the most part, state-level laws are similar in content to the federal statutes. At the federal level, antitrust enforcement is carried out under the provisions of the Sherman Act (1890), the Clayton Act (1914), and the Federal Trade Commission Act (1914).

Sherman Act. The Sherman Act was the first federal legislation explicitly intended to establish rules for the operation of private markets. The act prohibits concerted actions by two or more competitors to restrain trade, monopolization, and attempts to monopolize by one or more competitors.

Clayton Act. This act extended and added to the Sherman Act prohibitions by declaring illegal: price discrimination, tying or exclusive dealing contracts, and corporate mergers and acquisitions when the effect may be to substantially lessen competition or create a monopoly.^{1,2} In addition, the act gave private parties the right to bring suit to recover treble damages for injuries they suffered from violations of the antitrust laws.

Federal Trade Commission Act. This act created the FTC, an independent agency to investigate unfair methods of competition and other unfair or deceptive acts and practices, such as false, unsubstantiated, or otherwise misleading advertising.³

Exemptions from the Antitrust Laws

Activities can be exempted from possible challenge under the antitrust laws in a number of situations. At the federal level, immunity from challenge can be established by creating safe harbors, other

¹ Price discrimination occurs when a supplier is able to sell the same product to different consumers for different prices.

² A tying agreement is one in which a seller is only willing to sell one good if the purchaser agrees to buy a second good. An example is an automobile dealership that requires that customers use the dealership's service department for all repairs and maintenance as a condition of the purchase agreement.

³ This includes all acts and practices covered by the Sherman and Clayton Acts.

explicit exemptions, or by implied repeal. At the state level, a series of federal court decisions have established a doctrine by which states can displace the federal antitrust laws.

Safe Harbors and Other Explicit Exemptions. Explicit exemptions from the antitrust laws have been periodically granted by either the Congress or the courts. In 1922, for example, the Supreme Court granted professional baseball an exemption from the antitrust laws (Hosansky 1994). Under the McCarran-Ferguson Act, activities constituting the “business of insurance” are exempted from antitrust laws as long as those activities are regulated by the states.⁴ More recently, the proposed Health Care Antitrust Improvements Act of 1993 would have established safe harbors from antitrust enforcement for a number of physician and hospital joint ventures.⁵

Implied Repeal. The courts have held that when a new law is in conflict with the antitrust statutes, the minimum amount of the conflicting antitrust statute necessary to bring the new law into effect is considered to be repealed. If it had been enacted, provisions of the Health Security Act relating to collective negotiation in establishing fee schedules, for example, would have constituted an implied repeal of the antitrust laws (Bloch and Falk 1994).

State Action Immunity Doctrine. Through a series of decisions, the courts have articulated criteria for the states to displace the federal antitrust laws. For private anticompetitive conduct to be immune from federal antitrust liability, the state must clearly articulate and affirmatively express a policy to displace competition with regulation, and actively supervise and control the conduct. This doctrine originated in 1943 with the court’s decision in *Parker v. Brown*, 317 U.S. 341 (1943). Subsequently, in *FTC v. Ticor Title Insurance Co.*, 112 S. Ct. 2169 (1992), the court ruled that active state oversight was required to immunize private conduct from federal antitrust law (GAO 1994). To date, 24 states have instituted programs whereby certain activities by hospitals and other providers may be exempt from the antitrust laws (Shactman 1994).

Enforcement Policy in Health Care Markets

With few exceptions, health care markets were not subjected to antitrust law enforcement until the mid-1970s.⁶ In a series of decisions during the 1970s, the Supreme Court determined that neither the professional status of health care providers nor other unique aspects of health care markets made the antitrust laws inapplicable (Wing 1990).⁷

⁴ 15 U.S.C., Sections 1011-1015.

⁵ S. 1658/H.R. 3486, introduced in the 103rd Congress.

⁶ Notable exceptions include actions taken by medical societies to hinder the formation of HMOs during the 1940s and 1950s (e.g., *AMA v. United States* 317 U.S. 519 [1943]). For more detail see Annas et al. (1990).

⁷ For example, the Sherman Act covers activities involving trade or commerce. The position that the activities of lawyers and other “learned professions” (e.g., physicians) were not acts involving trade or commerce and, hence not covered by the Sherman Act, was rejected in *Goldfarb v. Virginia State Bar*, 421 U.S. 773 (1975) and *National Society of Profession Engineers v. United States*, 435 U.S. 679 (1978). In addition, in *Group Life and Health Insurance Company v. Royal Drug Company*, 440 U.S. 205 (1979), the Supreme Court held that the McCarran-Ferguson Act exempted only activities related to the “business of insurance” in underwriting risks and not the “business of insurers” in determining reimbursement rates for providers. See Wing (1990) for more detail.

The scope of health care activities examined under the antitrust laws includes mergers and acquisitions; horizontal restraints or agreements among competitors; and input market monopolization cases, such as hospital privilege cases (Vita et al. 1991). Recently, attention has been turning more toward joint ventures, such as preferred provider organizations (PPOs), PHOs and other integrated delivery system enterprises.

The general approach used in analyzing joint ventures, including those in health care markets, is to determine whether the venture significantly restricts competition. If it does, a second question is whether the restriction of competition is reasonably necessary to accomplish some feature or activity of the joint venture that is likely on the whole to be beneficial to consumers.

One important factor in this analysis is whether the joint venture involves real economic integration among its participants in order to create a new competitor in the market, or whether it is merely a convenient structure for raising prices or otherwise exploiting consumers.⁸ In analyzing physician-sponsored networks, considerable weight is placed upon whether the venture involves the sharing of substantial financial risk. Sharing financial risk increases the probability that the venture participants are acting in the interests of the joint venture and not in their own interests as individual competitors.

The first major application of the antitrust laws to health care provider joint ventures, *Arizona v. Maricopa County Medical Society* 457 U.S. 332 (1982), illustrated the importance of economic integration. The Maricopa and Pima county medical foundations set maximum fee schedules for participating physicians.⁹ About 70 percent to 80 percent of physicians in the counties participated on a nonexclusive basis (Wing 1990). None of the participating physicians, however, had a financial interest in the foundations or other forms of financial risk sharing. In a five to four split decision, the Supreme Court held that the agreed-upon maximum fee schedules represented a price-fixing scheme among competing physicians and that it was not integral to any procompetitive features of the joint venture. On the other hand, in *Hassan v. Independent Practice Associates, P.C.*, 698 F. Supp. 679 (E.D. Mich. 1988), a physician-sponsored independent practice association (IPA) that involved significant risk sharing by the participating physicians was held to be sufficiently integrated that joint pricing by its members did not violate the antitrust laws.

Per se Violations and Rule of Reason Analysis. Joint ventures can be challenged either as *per se* violations of the antitrust laws or based upon the outcomes of more extensive rule of reason analyses.

Per se Violations. If a joint venture does not involve significant economic integration, then certain activities that it may undertake could be condemned as *per se* violations of the antitrust laws. Under the *per se* rule, certain practices are deemed to be sufficiently anticompetitive in most circumstances that it is not necessary to consider whether the activity actually resulted in injury in a specific

⁸ In general, a legitimate joint venture should contain four attributes: (1) the venture is under the joint control of parent entities which are not under related control; (2) the venture exists as a business entity separate from the parent entities; (3) the venture creates a new capability, product, or entry in to a market; and (4) each parent makes a substantial contribution to the joint venture (Brodley 1982).

⁹ In addition, these foundations performed some utilization review and administrative financial activities.

situation.¹⁰ These practices include price fixing, market allocation agreements, tying agreements, boycotts, and other agreements among competing firms to restrain competition.¹¹ Because the enforcement agencies (or private plaintiffs) do not have to demonstrate specific injury, the *per se* rule is considered to be a powerful tool in antitrust law enforcement.

Joint ventures that are not economically integrated, however, are not necessarily subject to *per se* condemnation. As long as they do not engage in the set of activities deemed to be *per se* violations, the overall merits of the venture would then be examined according to a “rule of reason” analysis described in the following section.¹² For example, a nonfinancially integrated physician-owned PPO can avoid *per se* condemnation by using a “messenger” model to set prices (DOJ/FTC 1994). Under this model, venture participants do not exchange any information among themselves about prices. Instead, a third party (messenger) is used as an intermediary between each member of the joint venture and the purchaser on an individual basis. For example, if the venture has three participants (A, B, and C), then the messenger would convey price information between the purchaser and member A, the purchaser and member B, and the purchaser and member C in three separate and independent exchanges. In this way, prices are determined in a noncollusive fashion between the purchaser and the members of the joint venture.

Rule of Reason Analysis. If the joint venture is deemed legitimate (i.e., not merely a vehicle for anticompetitive conduct), then its activities that appear to be restrictions among the participants could be examined under a rule of reason analysis to determine if the procompetitive attributes of the venture outweigh any anticompetitive effects it may create. Whether the venture is actually subject to further examination would be determined by a number of factors including its potential for affecting the overall market.

There are four general steps to a rule of reason analysis (DOJ/FTC 1994). First, the relevant market has to be defined. This involves identifying the new and existing services produced by the joint venture and the relevant geographic markets in which they are supplied.

Second, the anticompetitive impacts of the venture are identified. This requires examination of the relevant markets to determine the ability of the joint venture to raise prices or undertake other actions that would injure consumers.¹³ If the venture does not contain any anticompetitive features, then the third step of the analysis, which considers procompetitive features, is unnecessary and would be skipped.

¹⁰ See *FTC v. Superior Court Trial Lawyers Association*, 493 U.S. 411, 430 (1990) as cited in Teevans (1993).

¹¹ Although tying agreements are typically considered to be *per se* violations, the approach used currently by the Supreme Court requires a determination of the market power of the tied good, a showing that the goods are independent, proof that the goods or services are tied, and evidence that the tie affects a significant portion of commerce (see *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 [1984]).

¹² The development and dissemination of practice guidelines, for example, are types of joint activities that would fall into this category.

¹³ The factors considered in this step include (1) the number and size of competing providers, (2) the likelihood that other providers would enter the market, (3) the effects of government regulation, and (4) other characteristics that would make anticompetitive activities unlikely.

If the venture contained some anticompetitive features, then the procompetitive efficiencies of the venture are assessed to see if they outweigh the anticompetitive features. Procompetitive efficiencies could include reducing the cost of providing existing services, increasing the capability to provide additional services, or improving the quality of care.

Finally, any collateral agreements are examined. These include any agreements that could restrict competition without making a significant contribution to the legitimate purpose of the joint venture (e.g., physicians agreeing to extend an IPA fee schedule to patients not covered by the IPA).

The information gathered by this process forms the basis for determining if the proposed joint venture would on the whole benefit consumers.

ISSUES

The physician community has raised several issues about the current system of antitrust laws and enforcement policies. First, uncertainty over which activities would be challenged by the enforcement agencies may have deterred some activities that would be on the whole beneficial to consumers. Second, there is concern that the laws are biased against physician-sponsored joint ventures. Physicians allege that they are unable to act collectively to offset leverage by large insurers in payment rate negotiations. Finally, physicians allege that they face more legal obstacles than insurers in setting up networks and other joint ventures.

Does the Uncertainty of Antitrust Laws Chill Innovation in Health Care Markets?

Between the relatively short history of health market-related antitrust enforcement and the onset of rapidly evolving market structures, considerable uncertainty has developed about what types of arrangements/ventures would be subject to antitrust enforcement. The antitrust laws are general in structure, encompassing a wide range of activities. Application of the laws, however, is very fact sensitive, giving rise to situations where one joint venture may receive little or no scrutiny while another one, that is factually quite similar in form or scope, may be challenged due to differences in market concentration or entry conditions.

Uncertainty about enforcement may create a chilling effect on the formulation of new and innovative means of delivering care. Further, this chilling effect may be disproportionately larger on smaller enterprises, such as those more likely to be organized by physicians, because these ventures would have fewer financial resources to devote to fending off antitrust challenges.¹⁴

Actions Taken to Reduce Uncertainty. Over the last several years, in response to professional and congressional concerns, the DOJ and the FTC have taken a number of actions to clarify how the

¹⁴ This may be especially true for those challenges brought by private parties under the Clayton Antitrust Act with possible treble damage awards.

antitrust laws will be enforced in health care markets. The most significant steps have been the joint release of two sets of policy statements specifying safety zones from antitrust challenges. In addition, the agencies have implemented steps to inform the industry on an expedited basis about possible challenges to specific instances.

DOJ/FTC Antitrust Enforcement Policy Statements. In an effort to clarify their enforcement policies, in September 1993, the DOJ and the FTC jointly released a set of statements indicating six instances (safety zones) in which neither agency would challenge on antitrust grounds (DOJ/FTC 1993). In regard to physician activities, absent extraordinary circumstances, the agencies would not challenge:

- the collective provision by physicians of medical information to help purchasers of their services resolve issues about the mode, quality, or efficiency of medical treatment;
- joint purchasing arrangements among health care providers, as long as they meet conditions designed to ensure they do not become vehicles for collusive purchasing or for price fixing; and
- physician network joint ventures comprised of no more than 20 percent of the physicians in any specialty in a geographic market who have active hospital staff privileges and who share substantial financial risk.

These initial statements have been clarified recently and expanded with a new set of nine statements that were released on September 27, 1994 (DOJ/FTC 1994). The key changes to the original statements are:

- addition of statements on (1) safety zones for hospital joint ventures involving specialized clinical or other expensive health care services, (2) safety zones for providers' collective provision of fee-related information to purchasers of health care services, and (3) analytical principles that would be applied in reviewing multiprovider networks (e.g., PHOs); and
- expansion of the physician network joint venture safety zone from 20 percent to 30 percent of physicians in any specialty in a given geographic market for nonexclusive joint ventures.^{15,16}

¹⁵ A nonexclusive network is defined as one which does not impose any significant restrictions on the ability of its member providers to affiliate with other networks, whereas an exclusive network imposes such restrictions on its member providers (DOJ/FTC 1994).

¹⁶ The safety zone remains at 20 percent for exclusive joint ventures.

Although the agencies currently do not plan to release any additional enforcement statements in the near future, they are willing to do so as further areas needing clarification are brought to their attention (Whitener 1994).

Expedited DOJ Business Reviews and FTC Advisory Opinions. The agencies have offered to provide expedited business reviews and advisory opinions on any matter contained in the enforcement statements within 90 to 120 days of receiving all material necessary to respond.¹⁷

Will These Activities Reduce Uncertainty? The steps taken by the enforcement agencies, especially the release of enforcement statements, are unique to the health care industry. No other industry has been provided as much information about federal enforcement policy.

Unfortunately, it is difficult to ascertain whether these steps will in fact reduce uncertainty about enforcement. On the one hand, the enforcement statements provide considerable guidance on the general actions that could be taken to minimize the prospects of antitrust challenges by the enforcement agencies. Further, the business review/advisory opinion mechanism allows parties contemplating entering into joint ventures to know up front in a relatively timely fashion (i.e., within 120 days at most) the prospects of their specific venture being challenged by the agencies.

On the other hand, some organizations believe that these steps still have not gone far enough to reduce uncertainty. The statements specify the share of physicians in a given market and examples of risk sharing that will fall within the safety zones. Little information, however, is provided on what constitutes the relevant market or the degree of risk sharing that is necessary to satisfy that requirement. Traditionally, the agencies have used a relatively narrow definition of the market (Vita et al. 1991). Even if this approach is useful in analyzing hospital mergers, where there are usually few hospitals specializing in a reasonable number of service clusters, it is unclear how it would apply to, say, physician networks that encompass a potentially wider range of services spread over a more geographically dispersed group of providers.

In the enforcement statements, the agencies have concluded that substantial risk sharing includes acceptance of capitated payments by the group or shared financial incentives for the venture's members to meet cost-containment goals, such as partial payment withholds. Short of full capitation, prospective ventures still must estimate what amount of risk sharing would satisfy this criterion. For example, as evidenced by recent FTC advisory opinions on proposed networks, in some instances a 15 percent withhold appears to be sufficient whereas in others, it is not (Horoschak 1994a; 1994b).¹⁸ Further, it is possible that alternative forms of risk sharing, such as global payments and other forms of financial contributions, might also work. The statements, though, do not provide any guidance on which types of alternative risk sharing arrangements may be acceptable.

¹⁷ These business reviews and advisory opinions should not be confused with rule of reason analyses. The former are brief opinions, based on information provided to the agencies, about whether proposed ventures run the risk of violating the antitrust laws. The latter are formal analyses that encompass considerably more information collection and analysis.

¹⁸ There were other substantive differences between the proposed networks that contributed to the differing determinations of whether a 15 percent withhold constituted sufficient financial risk.

Finally, a limitation of business reviews and advisory opinions is that they are nonbinding on other potential plaintiffs or the DOJ and the FTC. Because of this, these reviews/opinions act only as a partial test of legality, serving mainly to indicate instances where the agencies will most likely challenge ventures. Joint ventures receiving preapproval from the agencies, however, may be legally no better off than if they did not seek approval at all.

Are Physicians Treated Unfairly Under Current Enforcement Policies?

The physician community has raised concerns about whether current enforcement policy unduly restricts physicians' ability to compete effectively in the medical marketplace (Bierig 1995; Hirshfeld 1994; Todd 1993). Physicians are concerned that market pressures to reduce costs will ultimately reduce beneficiary access to high-quality care. The arguments in support of this allegation are based in part on two aspects of current law enforcement policy. These arguments largely come from one potential interpretation of both current law and the DOJ/FTC enforcement statements.

First, physicians argue they are blocked from organizing to offset increasing insurer market power.¹⁹ As health care markets continue to consolidate, the remaining payers in the market would be increasingly able to exercise market power to drive down physician payment rates. Under the antitrust laws, however, any attempts to negotiate payment rates collectively (without substantial risk sharing) on the part of physicians would be subject to *per se* condemnation. The principal concern with permitting collective price negotiations is the fear that market prices will increase above competitive levels. It has been argued, however, that if collective negotiations were limited to small groups of physicians, then market power would not be obtained and the overall price level could not be influenced (Todd 1993).

Second, physicians argue that, relative to insurers, they face additional requirements in setting up plans. To minimize the risk of being challenged by the enforcement agencies, physician-sponsored plans must (1) have substantial risk sharing (or use a messenger model style price negotiation process) and (2) contain at most 30 percent of physicians in a given market and be nonexclusive.

Finally, physician organizations have argued that these additional requirements place physician-sponsored plans at an unfair competitive disadvantage with insurer-sponsored plans (Hirshfeld 1994). The prescribed methods of demonstrating risk sharing in the enforcement statements (i.e., capitation or substantial withholds) effectively bar physicians from establishing PPOs except by following a messenger model approach to establishing prices. If the plan opts for a messenger model approach, then some potential efficiencies would be lost through increased transaction costs in negotiating prices. Further, limiting staff size to at most 30 percent of the physicians in a given specialty would reduce the plan's ability to compete for customers based upon choice of physician and range of services. Lastly, in light of the changing structure of health care markets, some physicians have questioned the appropriateness of relying on the percentage of physicians to measure market

¹⁹ Market power has been defined as the "power to control prices [or restrict output] or exclude competition," *United States v. E.I. du Pont de Nemours and Co.*, 351 U.S. 377, 391 (1956).

concentration. Instead, a more flexible set of measures may be better to accommodate the characteristics of the changing marketplace.

There are several counter arguments to those raised by physicians about equitable treatment under the antitrust laws. First, the contention that physician networks face higher legal impediments is based on a comparison to insurer-sponsored networks that may not be appropriate. The organizational structure of an insurer-sponsored plan is a *vertical* arrangement between a purchaser and a number of independent suppliers. In contrast, a physician-sponsored plan is a *horizontal* arrangement among competitors to operate in some cooperative fashion. Horizontal joint ventures organized by competitors in other industries are subject to essentially the same level of scrutiny as physician-organized networks (Lerner 1994).²⁰

Second, the network size limits contained in the statements are intended to be a rule of thumb and not a threshold value separating ventures that would be challenged from those that would not. Ventures with more than 30 percent of physicians in the market may successfully avoid challenges from the agencies. Indeed, a number of examples contained in the DOJ/FTC statements consisted of ventures that fell outside of the safety zones and would not be challenged.²¹

The concern of the enforcement agencies is whether a proposed venture is large enough to obtain market power. In defining safety zones, the agencies use shares of physicians as a rough approximation of the potential to exercise market power. That is, the share of physicians in the market controlled by the network could indicate the ability of the network to forestall market entry by competing networks. If the joint venture is subject to a rule of reason analysis, however, then a more rigorous examination of potential market power would be performed.

Further, because each market is different, the enforcement agencies have no hard and fast rule as to what concentration will result in market power. It may not be necessary to have a large number of participants to limit market power of any particular purchaser or supplier. Instead, if there are few barriers to entering the market (i.e., the market is “contestable”), then the ability of any participant to exercise market power is limited (Baumol, Panzar, and Willig 1982). In this context, the 30 percent limit serves merely as a rule of thumb of the maximum market share that would not pose a threat. Beyond this limit, short of monopoly, it is unclear what level of concentration would automatically elicit a challenge from the agencies. In 1981, for example, the FTC stated that, “concerns over the loss of potential competition may be most likely to arise when the physician group forming a plan comprises a substantial majority (e.g., two-thirds or more) of area practicing physicians or of any significant physician specialty” (FTC 1981). This implies that, under certain conditions, physician-

²⁰ Other examples of where joint venture horizontal restraints have been rejected under *per se* rule include *United States v. Topco Assocs.*, 405 U.S. 596 (1972), *Citizen Publ’g Co. v. United States*, 394 U.S. 131 (1969), *United States v. Sealy, Inc.*, 388 U.S. 350 (1967), and *Timken Roller Bearing Co. v. United States*, 341 U.S. 593 (1951).

²¹ Recently, the DOJ gave the go-ahead to the formation of two nonexclusive provider-sponsored plans that exceeded the 30 percent safety zone limits. One plan was a California-based PPO involving up to 50 percent of chiropractors in a market (Bingaman 1994b). The other plan was a physician-sponsored network in Kentucky that would encompass 37 percent of physicians in the market (Bingaman 1994c).

sponsored plans may capture a considerably larger share of the market than the 30 percent limit and still avoid challenges under the antitrust laws.

Finally, except for the limited exemptions granted under the McCarran-Ferguson Act, insurers are not exempt from antitrust scrutiny. If insurers either agreed among themselves on payment levels or attempted to exercise market power as monopsonists to drive down prices, they also would be subject to prosecution under the antitrust laws. The test of whether an antitrust law has been violated consists of determining if consumers have on the whole been made better or worse off by an act. Physicians allege that as purchaser power becomes more concentrated, insurers will be able to drive down payment rates, ultimately to the detriment of consumers. But first, if there are few barriers to market entry, then the ability of purchasers (i.e., insurers) to reduce provider prices is limited. As payment rates are decreased, other purchasers (existing or potential entrants to the market) will attempt to bid away physicians by offering higher payment rates. In addition, if other purchasers cannot enter the market, then prosecution under the antitrust laws can occur if purchasers are able to exercise market power (Horoschak 1994c). In 1991, for example the FTC filed a complaint against six Rockford, Illinois nursing homes for boycotting local nursing assistant registries to reduce payments for temporary nurses (FTC 1991).

ASSESSMENT

It is the Commission's view that the antitrust laws should not be changed at this time. Although proponents of reforming the antitrust laws have argued for relief from the current risk-sharing and market share limit requirements, creating explicit exemptions or otherwise easing certain conditions are extremely serious steps that should be taken only after compelling evidence has surfaced supporting the need for such actions (Bierig 1995). In addressing this issue, the Commission focused on whether such evidence exists, and if establishing additional safe harbors was the appropriate remedy. After careful consideration, the Commission has concluded that the currently available evidence indicating problems with the antitrust laws and enforcement policies is not sufficient to warrant changes in these laws.

Evidence That the Antitrust Laws Have Deterred Beneficial Activities

It has been alleged that uncertainty and unequal enforcement policies are deterring some potentially beneficial activities in health care markets. Collecting evidence about activities that are not occurring, however, is an inherently difficult task. The appropriate control groups to measure any chilling effects properly do not exist. In fact, little is even known about the extent of physician-sponsored joint ventures. Recent estimates indicate that about 15 percent to 20 percent of managed-care entities are provider run (*Managed Care Week* 1994a; AMCRA 1995). Almost half of these entities are either partially or completely physician sponsored (AMCRA 1995).

The limited evidence that does exist on chilling consists primarily of anecdotal material and the enforcement records of the agencies. The anecdotal material tells a mixed story. On the one hand, a

small collection of correspondence from law firms illustrates difficulties that their physician clients have encountered in organizing plans (AMA 1994). On the other hand, over the last several months various newspapers and trade magazines have reported the formation or intended formation of physician-sponsored networks. It has been reported, for example, that nearly three-fourths of state medical societies are either contemplating or are actually in the process of establishing physician-sponsored networks (*Medicine and Health* 1994c; *Managed Care Week* 1994).²²

The enforcement records of the agencies indicate that they have been far less aggressive in challenging health care related activities than is generally perceived. Between FY 1981 and FY 1993, only 68 of 397 hospital mergers resulted in preliminary investigations. Of these, only 15 were challenged (GAO 1994). The FTC has yet to challenge an existing legitimate physician network, and has challenged only two under *per se* rules (Horoschak 1994c).²³ Only one of nine advisory opinions concerning physician-sponsored PPOs issued by the FTC between 1986 and 1994 indicated that the proposed plan would run the risk of challenge.²⁴ Finally, none of 11 business review letters concerning provider-sponsored networks issued by the DOJ between 1987 and 1994 indicated that the proposed ventures would be challenged.

The Pros and Cons of Creating Safe Harbors

A wide range of potential safe harbors could be established. The most obvious example would be codification of the DOJ/FTC enforcement statements as proposed under the Health Care Antitrust Improvements Act of 1993. Another possibility would be to eliminate the risk-sharing requirement for establishing physician fee schedules (Bierig 1995).

An advantage of creating safe harbors would be reduced uncertainty by detailing which activities would be exempted from antitrust enforcement. Providers would then be able to redirect to activities more beneficial to consumers the time and effort now being spent ascertaining the legality of their proposed ventures. In addition, providing relief from the market share and financial risk-sharing restrictions would allow the creation of a larger variety of potentially beneficial ventures.

Although changing the law may remedy one perceived problem, it may create additional ones that on the whole would make consumers worse off. Enforcement of the antitrust laws is a dynamic process that changes to reflect evolving market relationships. A key to successful enforcement is permitting the agencies flexibility to adapt to the changing marketplace. Certain market structures that may have been subject to challenge five years ago may have evolved enough to no longer be a concern today,

²² Additional examples of physician-sponsored network formation are reported in *Managed Care Week* (1994b; 1995), and *AMA News* (1994; 1995).

²³ *Preferred Physicians, Inc.*, 110 F.T.C. 157 (1988) (consent order) and *Southbank IPA, Inc.*, 114 F.T.C. 783 (1991) (consent order).

²⁴ This was a proposed agreement between the Montana Medical Society and ACMG, Inc., a health care management and development corporation (Horoschak 1994b). Of the eight that were not at risk of challenge, five were deemed to be sufficiently financially integrated and three used a mechanism to avoid price agreements among participating physicians.

whereas others may have become more prone to anticompetitive behavior. As noted above, in response to congressional and professional concerns, the DOJ and the FTC have jointly taken steps to try to inform the public about their policies. In addition, the agencies are willing to provide additional clarification if there is sufficient industry interest.

Creating safe harbors would limit the flexibility of the agencies in enforcing the laws. Application of the law is heavily dependent on the specific facts of a case. Establishing safe harbors might limit the agencies' ability to challenge activities falling within the safety zone that may be on net harmful to consumers.

This may especially be likely where the safe harbors are incorrectly drawn. The lack of specificity in some aspects of the DOJ/FTC statements reflects a true, and justifiable, reluctance on the agencies' part to detail enforcement policies in light of uncertainty over what current and future activities will be beneficial or detrimental to consumers. A real concern is that providing too much detail will tend to direct markets toward structures that, in the long run, may not be the most efficient. In some instances, for example, the most economically efficient size of a network may be in excess of, say, a 30 percent safe harbor. Network sponsors, however, might be prone to form smaller, less efficient networks to stay within the safe harbor. The higher costs associated with these less efficient structures would, in turn, then be passed on to consumers.

An additional, more specific, concern is that relaxing risk-sharing requirements will open the door to a range of activities that would harm consumers by raising prices or limiting choice (Bingaman 1994a; Steiger 1994). As noted above, the *per se* rule allows the courts and enforcement agencies to conserve resources in enforcing the antitrust laws since activities demonstrated in the past to be blatantly harmful to consumers need not be shown to be harmful in each additional specific instance. Relaxing risk-sharing requirements would either force the courts and the agencies to rely on more resource-intensive rule of reason analyses in examining these ventures or make these ventures legal even if harmful. Given current and potentially greater future budgetary constraints, relaxed requirements might in effect weaken the enforcement ability of these agencies.

Furthermore, establishing safe harbors might not be an especially effective way to reduce uncertainty about which specific ventures would be subject to challenge. For example, even though safe harbors might specify what share of the market a network can have, uncertainty would still exist as to what is the relevant market. This type of measurement uncertainty would exist regardless of whether the maximum market share was set at 20 percent, 30 percent, or some other threshold value.

Finally, unlike an enforcement statement, once a safe harbor has been enacted into law, it can be changed only after a lengthy legislative process. Any errors (or inadvertent loopholes), therefore, will have more long-term consequences.

MONITORING THE MARKETPLACE

While the Commission does not advocate changes in current law, it believes the potential problems with the current system of laws and enforcement policies raised by physicians may deserve additional

attention. If insurers are able to drive down physician fees through anticompetitive practices, or if current law has deterred truly beneficial joint ventures or other entities from entering the marketplace, then ultimately consumers would be worse off.

In the Commission's view, the enforcement agencies should undertake a number of steps to address these concerns of the physician community. Specifically, these agencies should gather and make publicly available information on the following four areas: (1) anticompetitive practices of insurers in establishing physician fee schedules, (2) chilling effects on the development of efficient health care structures, (3) biases against physician-owned networks, and (4) impacts on rural health care.

Anticompetitive Practices of Insurers in Establishing Physician Fee Schedules

As markets continue to consolidate, the ability of individual plans to exercise market power against physicians will most likely increase. Although the enforcement agencies have made public assurances that any anticompetitive exercises of market power would be subject to prosecution, such challenges appear to be relatively few. The agencies, therefore, should undertake a systematic examination of the anticompetitive impacts of plan mergers and acquisitions on physician fees. The intent of this examination should be to determine if any anticompetitive activities brought about from market consolidation have made consumers worse off and to identify specific instances and conditions where plans actually have, or are most likely to, exercise market power in establishing fee schedules.

Chilling Effects on the Development of Efficient Health Care Structures

In their enforcement statements, the agencies may not have gone far enough or may be drawing the line proscribing certain behavior without sufficient regard to potential efficiencies and cost savings. No one has gathered good, systematic data on the extent to which antitrust has deterred the development of efficient organizations, or the likelihood that certain restrictions in competition could lead to higher consumer prices. Admittedly this may be an inherently difficult task, especially in the absence of appropriate geographic areas where the antitrust laws are more relaxed to serve as control groups. Even so, the agencies should assemble existing data and, if feasible, undertake a systematic survey of health care organizations, providers, and antitrust attorneys specializing in health care. The goals of these efforts would be to obtain information on the prevalence and rates of growth of various types of innovative provider entities, and the potential of antitrust law enforcement to discourage the formation of desirable organizations and other activities within the health care industry.

Bias Against Physician-Owned Networks

Current law requires substantial risk sharing to avoid *per se* condemnation. In addition, the agencies have specified maximum allowable market shares to avoid antitrust challenges. These criteria could be discouraging efficient physician-controlled organizations that do not follow the messenger model of health care networks. As noted above, it is possible that physician-sponsored networks would eliminate substantial negotiation costs and could provide higher quality service relative to insurer-sponsored networks. There is little information, however, on how physician control of networks

actually affects prices and quality. The agencies should undertake an analysis of physician-sponsored networks to determine if the alleged benefits truly do exist. One element of the analysis, therefore, should involve comparisons of physician- and non-physician-sponsored networks across markets and over time, controlling for other independent effects, to determine if physician-sponsored networks are truly more efficient or of better quality.

In addition, it has been alleged that the messenger model or other prescribed methods of fee negotiation are inefficient and offset most of the cost-reducing efficiencies from physician networks. The agencies should analyze these methods of fee negotiation to determine if the alleged inefficiencies exist. Further, the agencies should identify and examine alternative methods of fee negotiation to determine if these methods are more efficient and satisfy the agencies' concerns about price collusion.

Finally, concerns have been raised about the enforcement agencies' reliance on full capitation and partial payment withholds to demonstrate significant financial risk for the network participants. Some physicians have argued that payment withholds may not be an effective means of creating incentives for network participants to practice in a more cost-effective fashion. Although the DOJ/FTC enforcement statements indicate that other means of risk sharing may be acceptable, additional guidance on acceptable alternatives is required. The agencies, therefore, should identify and examine possible alternative methods of satisfying the joint venture risk sharing requirement.

Impacts on Rural Health Care

In rural areas there may be so few lives that the market could not efficiently support more than one or two health care networks (Kronick et al. 1993, (see Chapter 12)). In such situations, the agencies' statements indicate that antitrust considerations may lead to enforcement actions unless the provider organizations can clearly show that the prospective efficiencies would offset the potential loss in competition. It is usually difficult, however, to document prospective efficiencies sufficiently to convince the agencies that a network would, on balance, benefit consumers. Economic research on hospitals has been useful in determining their minimum efficient size. The agencies should undertake similar studies on networks to determine their minimum viable sizes. This, in turn, may be useful in developing (or modifying) safety zones that would recognize rural areas which can only support one or two efficient networks.

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THE CHANGING LABOR MARKET FOR PHYSICIANS

Over the past several years, a consensus has emerged among many policymakers and researchers about the need for change in the supply and specialty mix of physicians. The policy debate has focused on concerns that an oversupply of physicians will undermine other efforts to bring health care costs under control, and that the nation is training relatively too many specialists and relatively too few physicians in generalist fields (family practice, general internal medicine, and general pediatrics).

Some have argued that these problems will be resolved as the health care market becomes more competitive. The mechanism for this change will be the growth of cost-conscious integrated health systems that alter the number and mix of services used by patients and thus the number and mix of health professionals needed to provide those services. These developments will result in physicians not being able to find jobs in medicine or being employed at greatly reduced compensation, and thus send a signal to students and educators to change their behavior.

The opportunity now exists to see what changes in the organization and financing of health care are actually doing to the labor market for physicians. Although anecdotes abound concerning high salaries for new primary care physicians and unemployment of anesthesiologists, there has been no systematic assessment of whether the market is causing the work force to change.

This chapter considers potential indicators of changes in the labor market for physicians and reviews what these indicators are now showing. It begins by describing the dual labor markets affecting the physician work force: the training environment and the practice environment. Two types of change in the labor market are then assessed: whether there is evidence that increasing demand for primary care physicians is leading to changes in specialty mix, and if there is any indication that the market is creating incentives to train fewer physicians overall. Although there have been some changes in the labor market, it is still too early to know whether these signal a departure from previous trends.

MARKETS RELEVANT TO THE PHYSICIAN WORK FORCE

In considering whether market forces will lead to changes in physician supply and specialty distribution, it is important to recognize that there are actually two markets of interest: the market for physicians' services and the market for physician training. This distinction matters for two reasons. First, market pressures may lead to diametrically opposed responses from the two markets. That is, while organized systems of care may be demanding fewer physicians and relatively more primary care physicians than in the past, teaching hospitals, under significant pressure to economize, may be more

dependent than ever on using residents to meet service needs. Residents in high-technology and procedural fields, such as cardiology and gastroenterology, may remain valuable to hospitals.

Second, even if there are substantial changes in the market for physicians' services, the length of the training pipeline and the large stock of practicing physicians will preclude any substantial short-run impact on supply and specialty mix. For example, a substantial increase in starting salaries for primary care physicians will not likely affect the behavior of individuals who have just begun training in surgical specialties. As a result, one would expect that indicators measuring the production of physicians would lag behind those measuring changes in the practice environment. Moreover, given the size of the pool of practicing physicians, even substantial changes in the behavior of recent graduates will have only a small impact on the size and composition of the physician work force.

Even if graduates of U.S. medical schools begin to respond to market pressures by increasingly seeking positions in primary care fields, hospitals may continue to meet their staffing requirements by filling positions in highly specialized fields with international medical graduates (IMGs). After decreasing as a share of all residents during the 1980s, the percentage of residents who are IMGs has begun to rise again (Table 14-1).¹ Although a majority of these residents are either U.S. citizens or permanent resident aliens (and thus cannot be stopped from entering the pool of practicing physicians via changes in immigration policy), a growing share of these residents enter the United States on exchange visitor visas (Table 14-2). The Commission is particularly concerned about recent changes in the exchange visitor program that will likely increase the number of such visas issued annually.²

Table 14-1. Trends in the Number and Percentage of Residents Who Are International Medical Graduates for Selected Years, 1970-1993

Year	Total Number of Residents		Percentage Who Are IMGs	
	First-Year	All	First-Year	All
1970	11,552	39,463	29	33
1975	11,401	54,500	29	31
1980	18,702	61,465	21	20
1985	19,168	75,514	14	17
1990	18,322	82,902	19	18
1993	21,616	97,370	27	23

SOURCE: *Journal of the American Medical Association* Medical Education Issues.

NOTE: IMGs refers to international medical graduates.

¹ Physicians who come here on exchange visitor visas must return to their home country for at least two years after completing training before reentering the United States.

² The process for waiving the requirement that foreign nationals return to their home country for two years after completing training before reentering the United States was modified under the Immigration and Naturalization Amendments of 1993 to permit state health departments to request such waivers for physicians agreeing to practice in underserved areas for at least three years. Previously, only federal agencies could request such waivers. This new provision was signed into law in late 1994.

Table 14-2. Trends in Immigration Status of Residents Who Are International Medical Graduates by Immigration Status, 1986-1993

Year	Percentage by Immigration Status				Total
	U.S. Citizen	Resident Alien	Exchange Visitor	Other*	
1986	48	37	11	4	12,207
1988	41	33	17	9	12,433
1989	39	34	18	9	12,259
1990	34	33	23	10	14,914
1991	30	34	26	9	17,017
1992	26	32	31	10	19,084
1993	22	31	35	12	22,706

SOURCE: *Journal of the American Medical Association Medical Education Issues.*

* Includes refugees, miscellaneous, and unknown.

NOTE: Data for 1987 and years prior to 1986 not available.

CHANGES IN THE SPECIALTY MIX OF PHYSICIANS

There are several potential indicators of changes in the mix of physicians in different specialties: relative incomes, availability of jobs, medical students' expressed specialty preferences, residency match rates, and the availability of residency positions. These indicators provide mixed messages about whether the labor market is changing.

Changes in Relative Incomes

There is some evidence that generalists' incomes are making strides, although physicians in selected specialties also continue to post income gains (Tables 14-3 and 14-4). The American Medical Association's (AMA) recently released income figures for 1993 indicate that family practice and internal medicine had the highest one-year increases in median net income at 10 percent and 15.4 percent, respectively. Incomes of surgeons also continued to climb, however (up by 8.7 percent). The hospital-based specialties of radiology, anesthesiology, and pathology saw no rise at all in median incomes. Income increases were lower in regions where managed-care growth was the fastest. Median incomes remain far apart, however, at nearly \$240,000 for radiologists and about \$110,000 for those in family practice (Mitka 1994).

The Medical Group Management Association's (MGMA) most recent survey of physicians in group practices also found that specialists' incomes declined relative to those of primary care physicians in 1993. Incomes of anesthesiologists and radiologists dropped from the previous year by 2 percent and 5.3 percent, respectively, while those of generalists increased (up 8.3 percent for internists, 7.4 percent for pediatricians, and 6.6 percent for family practitioners) (MGMA 1994).

Table 14-3. Median Physician Income for 1993 and Percentage Change in Median Income for Selected Specialties from Various Sources, 1992-1993

Specialty	American Medical Association		Medical Group Management Association		Medical Economics	
	Income	Change	Income	Change	Income	Change
Primary Care						
Family practice	110,000	10.0	120,000	6.6	109,160	6.3
Internal medicine	150,000	15.4	129,400	8.3	118,570	3.0
Pediatrics	120,000	7.1	125,298	7.4	111,510	-5.3
Surgery						
General surgery	225,000	8.7	192,698	3.0	152,050	-13.1
Ophthalmology	182,000	4.0	197,675	-0.8	158,820	*
Orthopedics	270,000	9.3	288,684	-0.2	243,530	5.1
Other						
Anesthesiology	220,000	0.0	230,366	-2.0	191,450	*
Obstetrics/gynecology	200,000	5.3	204,613	-0.7	198,000	-5.4
Psychiatry	120,000	0.0	128,076	6.7	109,410	2.1
Radiology	240,000	0.0	257,414	-5.3	217,130	*
All	156,000	5.4	159,564	2.3	140,840	-8.3

SOURCE: American Medical Association Socioeconomic Monitoring System; Medical Group Management Association Physician Compensation and Production Survey; Medical Economics Continuing Survey.

* Not available.

The 1993 *Medical Economics* Continuing Survey reported an 8.3 percent drop in median income for physicians in private practice.³ Family practice and internal medicine posted net income gains of 6.3 percent and 3.0 percent, respectively. Surgeons, by contrast, saw a 12.4 percent decline in net income, although orthopedic surgeons saw a 5.1 percent increase (Goldberg 1994). Despite these trends, most specialists still have substantially higher earnings than generalists; for example, although gastroenterologists had a 6.1 percent reduction in net income, their net earnings (\$191,450) are still about 60 percent higher than those of internists (\$118,570).

Expectations about starting salaries are also another potential barometer of income shifts between generalists and specialists. The 1994-95 survey of physician income expectations, sponsored by Physician Services of America, indicates that the median income expected by generalists is about \$100,000 (Table 14-5).⁴ This is unchanged from the previous year for family practitioners and internists, but represents a \$15,000 increase for pediatricians. Except for ophthalmology, income

³ Discrepancies between the *Medical Economics* survey and the previous two data sources are attributable to a variety of factors. These include differences in response rates (about 65 percent to 70 percent for the AMA survey compared with about 17 percent for the *Medical Economics* survey and about 20 percent for MGMA); differences in the type of physician survey (*Medical Economics* surveys office-based physicians only, while MGMA surveys its member groups); and differences in the source of income (the AMA survey reflects income from patient care, while the MGMA survey includes all income earned, including research stipends and honoraria). Results from the AMA survey reflect the experience of about 4,000 physicians; MGMA findings reflect the experience of more than 20,000 practitioners (AMA 1993).

⁴ Physician Services of America is a national physician recruiting firm that annually surveys a sample of 13,500 residents, fellows, and young physicians. Respondents are asked what they expected to earn in a first job.

Table 14-4. Trends in Income for Selected Specialties and Selected Years (dollars in thousands)

Specialty	1986			1992			1993		
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile
Primary Care									
Family practice	53	75	100	73	100	134	75	110	149
Internal medicine	67	95	130	94	130	200	103	150	222
Pediatrics	55	75	100	70	112	154	86	120	164
Surgery									
General surgery	90	127	180	120	180	280	150	225	320
Ophthalmology	80	120	190	125	175	262	125	182	300
Orthopedics	139	184	240	180	250	340	190	270	400
Other									
Anesthesiology	110	149	195	166	220	280	160	220	280
Cardiology	*	*	*	150	230	310	165	250	350
Obstetrics/gynecology	89	127	170	120	190	287	150	200	280
Psychiatry	65	82	106	89	120	150	87	120	150
Radiology	120	155	210	160	240	310	169	240	314
All	70	100	150	100	148	223	108	156	240

SOURCE: American Medical Association Socioeconomic Monitoring System.

* Not available.

Table 14-5. Trends in Salary Expectations for Residents and Physicians New to Practice for Selected Specialties (dollars in thousands)

Specialty	Range and Median Salary Expected			
	1990*	1991*	1993	1994
Primary Care				
Family practice	70-90	75-120	75-140 (100)	80-150 (100)
Internal medicine	65-80	80-90	95-125 (100)	80-150 (100)
Pediatrics	60-80	70-90	70-120 (85)	70-150 (100)
Surgery				
General surgery	80-120	90-120	120-250 (135)	100-230 (150)
Ophthalmology	80-120	80-120	125-300 (172)	80-200 (120)
Orthopedics	120-150	120-150	125-300 (175)	100-300 (162)
Other				
Anesthesiology	100-140	115-150	100-350 (150)	100-350 (162)
Obstetrics/gynecology	100-125	100-150	120-250 (150)	100-250 (180)
Psychiatry	90-100	90-110	60-180 (120)	90-250 (120)
Radiology	115-150	125-150	100-350 (160)	100-350 (165)

SOURCE: Physician Services of America, Louisville, Kentucky.

* Medians not available for 1990 and 1991.

NOTE: Respondents asked what they hope to make as a first-year salary. The sample size for this survey is approximately 26,000 with a response rate of about 85 percent.

expectations for other specialties have increased somewhat. A data series spanning a longer period will be needed to determine whether salary expectations accurately reflect job offerings, whether there is a lag between reduced availability of jobs and changes in expectation about income, and whether such expectations are a good indicator of changes in specialty mix.

Changes in Jobs Available by Specialty

Many expect the growth of managed-care organizations to result in increased job opportunities for primary care physicians and fewer positions for specialists. Weiner (1994) estimates that if 40 percent to 65 percent of Americans are enrolled in health maintenance organizations (HMOs) by the year 2000, the supply of specialists will outstrip by 60 percent the number required by these plans. Similarly, Wennberg and his colleagues (1993) note that if the 1988 hiring practices of prepaid groups had been in force throughout the health system, more than half of all specialists would now be unemployed.⁵

Unlike income data, there is relatively little systematic, longitudinal information on the availability of jobs in different specialty fields. Perhaps the most frequently cited example of the growing demand for primary care physicians is the recruitment experience of managed-care organizations, many of which continue to seek primary care physicians while turning down applications from others. A 1993 survey by the Group Health Association of America found that at least 40 percent of managed-care plans have an easier time filling openings for nonprimary care physicians.⁶ This suggests that the supply of specialists relative to the number of openings is higher than the supply of generalists relative to the number of openings (GHAA 1993). In the Washington, DC area, Kaiser Permanente sends a form letter to those who apply for subspecialty positions in internal medicine, inviting them to reapply for a position in general internal medicine (McAveney 1993).

The Commission also sought input from three national physician recruiting firms, assuming that they might have a bird's-eye view of trends for hard-to-fill positions, but found their responses difficult to interpret. Two suggested that there had been a dramatic increase in demand for primary care physicians in the past year, while the third indicated that there had always been a strong demand for primary care physicians, particularly in rural areas. There was agreement, however, that demand for physicians in particular specialties has always been somewhat variable. At the moment, they see some decline in internal medicine subspecialties, and a substantial decline in anesthesiology and radiology, while orthopedics and general surgery remain in high demand. There are no discernable differences based on region.

⁵ Since the U.S. population is older and sicker than the population now enrolled in HMOs, some have criticized Weiner's and Wennberg's projections as excessive. Others, however, suggest that staffing pattern data are available only for established organizations that are no longer on the cutting edge, and that more dynamic systems might have an even smaller complement of specialists. Another argument is that managed-care organizations are limited by the available pool of primary care physicians and could be inclined to use more if more physicians were available.

⁶ Twenty-three percent reported that it was more difficult to fill these positions with the balance reporting no change from two years ago.

Two research projects now under way will provide more complete information about the availability of jobs in different physician specialties. The Robert Wood Johnson Foundation is supporting surveys on the employment experience of recent residency graduates. One of these, already in the field, asks residency program directors to identify what has happened to their recent graduates, their perceptions about the difficulties in getting jobs (particularly in private practice), and actions they are taking at the program level to respond to those issues. Results are expected in early 1995. The other is a large-scale telephone survey of graduates to determine firsthand the types of jobs they took, how many offers they received, their job satisfaction, and similar issues. If these surveys are considered successful, they could be repeated so as to develop a longitudinal database (Whitcomb 1994).

The second project, being conducted at the University of California at San Francisco for the Pew Health Professions Commission, is adapting a methodology used by the Bureau of Labor Statistics that treats help wanted advertisements in major medical journals as a proxy for marketplace demand for physicians. The study team is now reviewing journal ads in seven specialties for a 15-year period to determine whether advertised positions for specialists are declining and if those for generalists are increasing. Results are expected in spring 1995. If successful, such a study could be repeated annually to monitor marketplace trends at relatively low cost (Seifer 1994).

Changes in Medical Students Expressed Career Preferences

In 1994, the percentage of senior medical students expecting to be certified in generalist fields increased substantially after a 10-year decline (Table 14-6). Nearly 23 percent signaled their intention

Table 14-6. Career Preferences Expressed by Graduating Medical Students for Selected Years, 1980-1994 (percentage)

Specialty	1980	1985	1991	1994
Primary Care	31.0	29.8	14.9	22.8
Family practice	14.5	13.3	9.4	13.1
Internal medicine	10.6	10.7	2.9	6.2
Pediatrics	5.9	5.8	2.6	3.5
Surgery				
General surgery	4.8	6.2	2.1	3.0
Ophthalmology	3.5	3.6	3.4	3.4
Orthopedics	4.8	5.7	4.7	5.0
Other				
Anesthesiology	2.3	5.7	7.0	4.7
Medical subspecialties	3.7	10.6	16.0	12.2
Obstetrics/gynecology	4.2	5.4	2.5	3.8
Psychiatry	2.8	4.2	2.1	2.0
Radiology	3.8	5.7	7.7	6.6

SOURCE: 1980-1994 Association of American Medical Colleges Medical School Graduation Questionnaire.

NOTE: Percentages based only on students who had decided on a specialty. Data from 1991 and 1994 based on a new question format.

to take generalist training compared with less than 15 percent in 1991. In addition, seniors expressed declining interest in internal medicine subspecialties and anesthesiology (Kassebaum and Szenas 1994).

Even so, these figures are difficult to interpret as an indicator of market change. First, interest in generalist careers dropped dramatically during the 1980s (just over 30 percent intended to be certified as generalists in 1980) despite growth in managed care during this period. Second, it is not clear what is motivating the change. It could be that managed-care growth has finally become significant enough to affect medical students' perceptions about their future job opportunities. On the other hand, it may be that enhanced efforts by medical schools to interest students in primary care careers are having an impact. These include efforts by individual institutions (e.g., counseling and preferential admissions policies) as well as such activities as the Robert Wood Johnson Foundation's Generalist Initiative and those sponsored by the Association of American Medical Colleges' Office of the Generalist Physician.

Despite growth in expressed preferences for generalist careers, senior medical student interest in nonprimary care specialties continues to outpace the number of positions offered. In the 1994 residency match, there were only 0.4 positions in anesthesiology per interested student compared with 1.3 for family practice and 1.6 in internal medicine. Other specialties with low position to student interest ratios include dermatology (0.3), radiation oncology (0.1), diagnostic radiology (0.6), plastic surgery (0.3), and orthopedics (0.7) (NRMP 1994).

Changes in Residency Match Rates

Results from the spring 1995 National Residency Matching Program show over half (51 percent) of senior medical students are now seeking positions in generalist fields.⁷ This builds on the previous year, which was the best showing ever for family medicine, with a 14 percent increase in filled positions and a 13 percent rise in positions filled by graduates of U.S. medical schools (Table 14-7). Internal medicine filled more positions than in 1993, reversing a trend of yearly declines that began in 1985, although the match rate for U.S. senior medical students is declining (Kahn et al. 1994).⁸ Trends in match rates for nonprimary care fields were more variable (NRMP 1994).

Changes in the Number and Type of Residency Positions Available

In addition to match rates, another indicator of change in response to market pressure would be changes in the number and types of residency positions offered. Family practice had the largest

⁷ As part of the National Residency Matching Program, senior medical students submit their rank-ordered preferences for residency positions and residency program directors submit a rank-ordered list of students. A matching algorithm assigns students to programs with results for all students and programs announced in March of each year. Programs that do not fill all of their positions through the match may fill these positions with either unmatched students or international medical graduates before the training year begins in July.

⁸ It is important to remember, however, that residents matching in generalist fields may pursue subspecialty training after completion of their initial residency.

Table 14-7. Match Rates for U.S. Graduates and All Students, Selected Specialties and Years, 1980-1994 (percentage filled)

Specialty	1980		1985		1990		1994	
	U.S. Graduates	Total	U.S. Graduates	Total	U.S. Graduates	Total	U.S. Graduates	Total
Primary Care								
Family practice	72.8	77.7	68.5	80.0	59.3	70.4	66.7	82.7
Internal medicine	73.4	81.5	74.2	90.5	59.0	83.2	53.9	88.6
Pediatrics	65.3	73.0	67.8	89.0	63.0	81.4	69.6	92.1
Surgery								
General surgery	72.2	80.2	80.6	88.9	66.6	75.8	65.2	77.9
Orthopedics	91.4	93.4	87.2	98.8	87.7	99.3	87.5	99.6
Other								
Obstetrics/gynecology	78.6	88.4	81.1	94.9	86.0	97.0	84.8	98.7
Psychiatry	43.8	47.8	66.5	81.9	58.5	76.0	43.9	67.7

SOURCE: National Residency Matching Program.

NOTE: U.S. graduates refers to graduates of United States medical schools.

percentage increase in positions in the match in 1994, at 7 percent. The number of positions in primary care internal medicine (only a small proportion of all internal medicine positions) increased to an all-time high of 485 (up from 340 in 1990) (Kahn et al. 1994).

Data for nonprimary care specialties are harder to interpret because the number of positions that happen to be offered through the match varies from year to year.⁹ An alternative comparison would be the number of residents with no previous graduate medical education, also referred to as first-year residents (Table 14-8). Since 1990, there have been increases in the number of first-year residents in most specialties with the exception of anesthesiology. Moreover, increases for first-year residents in primary care fields have been more substantial than for surgical fields (for example, 29 percent for family practice compared to 6 percent in general surgery).

It is also worth noting that some residency programs are making curriculum changes to respond to the demand for generalists. In the past year, the majority of internal medicine training programs responding to the National Study of Internal Medicine Manpower (NaSIMM) reported efforts to develop a primary care focus. These included stepping up recruitment of candidates interested in primary care, hiring additional primary care faculty, introducing or expanding formal primary care training, sending more residents into ambulatory care settings, and making more ambulatory settings available (NaSIMM 1994).

⁹ In some specialties, such as family practice and internal medicine, virtually all positions are offered through the match. In others, some programs do not participate in the match. A third complicating circumstance is that in fields such as anesthesiology and diagnostic radiology, some programs match for first-year residents and others for second-year residents.

Table 14-8. First-Year and Total Residents for Selected Specialties and Years, 1980-1993

Specialty	First Year				Total			
	1980	1986	1990	1993	1980	1986	1990	1993
Primary Care								
Family practice	2,371	2,281	1,934	2,503	6,344	7,238	6,680	7,976
Internal medicine	5,948	6,234	6,518	7,843	15,964	18,116	18,734	20,603
Pediatrics	1,864	1,938	1,937	2,454	5,171	5,817	6,115	7,460
Surgery								
General surgery	2,539	2,412	2,408	2,567	7,440	7,880	7,644	8,243
Ophthalmology	31	24	3	27	1,480	1,549	1,446	1,674
Orthopedics	218	257	269	353	2,418	2,822	2,630	3,029
Other								
Anesthesiology	523	325	358	314	2,490	3,864	4,889	5,696
Obstetrics/gynecology	1,220	1,048	1,000	1,121	4,221	4,525	4,315	5,074
Psychiatry	1,063	980	874	1,096	3,911	4,892	4,673	5,044
Radiology	409	257	376	430	2,766	3,095	3,775	4,236
All	18,702	18,183	18,322	21,616	62,853	76,815	82,902	97,370

SOURCE: *Journal of the American Medical Association* Medical Education Issues.

Changes in Demand for Retraining

A growth in the demand by specialists for retraining in primary care fields could be a sign of a tightening labor market for physicians. A recent survey of California specialists found that 27 percent (including half of obstetrician-gynecologists and one-quarter of internal medicine subspecialists) plan to take some kind of training in the next five years (Page 1994). On the other hand, in the Commission's recent survey of physicians, only about 9 percent of specialists expressed interest in receiving additional preparation that would assist them in serving as primary care practitioners (Project HOPE 1995). No data are available, however, to judge whether this represents a change.

The usefulness of the demand for retraining as an indicator of market change will depend upon several factors. First and foremost is whether specialists will be motivated to undergo formal training before adopting primary care roles. Second, over time, if the output of residency training programs changes to be more consistent with market demands, the demand for retraining should diminish. Thus increased demand for retraining might best be considered an indicator of temporary disruption in the physician labor market.

CHANGING DEMAND FOR PHYSICIANS

There are a number of measures that may indicate whether the market is signaling that there are too many physicians overall. These include growth in the number of unemployed physicians, declining incomes, and a drop in college students' interest in pursuing medical careers.

None of these appears to be occurring. First, there is little evidence (either anecdotal or more systematic) of physicians unable to secure work in medicine. Second, as noted above, data on trends in physician income are conflicting. While the *Medical Economics* survey reported declines in

physician incomes, this finding is not supported by AMA survey data. In 1993, the AMA found that median physician income rose 5.4 percent, outpacing inflation for the third year in a row (Mitka 1994).

Changes in college students' willingness to pursue medical careers might be a lagging indicator of a tightened labor market for physicians. To date, however, there is no evidence that changes in the organization and delivery of medical care are discouraging college students from becoming physicians. In fact, applications to allopathic medical schools, after falling during the 1980s, hit their highest mark since 1974 last year, with a record 45,365 applications.¹⁰ Applications to osteopathic medical schools also rose in 1994 for the sixth straight year, with 9,336 students applying for 2,016 spaces (AACOM 1994). This trend is likely to continue given that plans are underway to open four additional osteopathic medical schools.¹¹ And a recent survey of college freshman found record interest in medical careers, with about 9 percent indicating that they intended to earn a medical degree (Sanchez 1995).

Caution should be taken in interpreting changes in the number of applications to medical school as an indicator of change in the labor market for physicians, however. This is because employment prospects in other fields also influence students' willingness to apply to medical school. Uncertainty about future prospects in law, business, engineering, and other professional fields thus may contribute to students' growing interest in medical careers.

Other changes such as the number of physicians taking early retirement or relocating might also be indicators of response to shrinking opportunities for physicians, but there are no good data sources to track these factors.¹² Similarly, changes in the roles of nonphysician practitioners who can act as physician substitutes (for example, nurse practitioners) might also signal an oversupply of physicians. This is more difficult to measure, however, and may be confounded by current restrictions on payment and practice as well as the varying roles that these practitioners play in managed-care organizations.

CONCLUSIONS

It is unclear whether growth of integrated delivery systems is changing the labor market for physicians. Although positions in generalist fields are becoming somewhat more attractive, changes in incomes have been modest and the number of specialists continues to increase. There is also little indication that overall job opportunities for physicians are contracting. Given the length of the training pipeline, the large pool of practicing physicians, and the differing incentives in the educational and

¹⁰ Despite the change in numbers of applications, enrollment in allopathic medical schools has remained relatively flat over the past decade.

¹¹ The four schools which are in various stages of planning would be located in Arizona, California, Florida, and Kentucky.

¹² Changes in the average retirement age can be obtained from the American Medical Association's Physician Masterfile, but these calculations are not made regularly.

practice markets, however, it may be that market forces are at work but it is simply too soon to see widespread effects.

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MEDICAL LIABILITY REFORM

The medical liability system does not adequately prevent medical injuries or compensate injured patients. There is concern that the current functioning of this system promotes the practice of defensive medicine. As the prevalence of managed care grows, the medical liability system's performance will become increasingly important to maintain quality of care and not impede efforts to provide appropriate, cost-effective care (McCormick 1994). Numerous proposals for reform have been advanced.

This chapter incorporates the Commission's previous work on medical liability reform and addresses newly proposed reforms. The Commission's recommendations focus on improving the functioning of the current system in the short term and beginning the development of a very different system to handle medical liability claims in the future.

RECOMMENDATIONS

The Congress should effect the widespread adoption of certain tort reforms, including:

- **reasonable schedules for noneconomic damages (interim limits may be employed until a schedule is adopted), offset of awards for collateral source payments, periodic payment of large awards for future damages, and allocation of a portion of punitive damages awards to quality improvement activities;**
- **schedules for attorneys' contingency fees, thresholds for joint and several liability, and reduction to a reasonable period of long statutes of limitations for minors; and**
- **encouragement of the use of binding alternative dispute resolution methods (nonbinding alternative dispute resolution should not be required).**

Work should begin to develop a future medical liability system that would include a fast, efficient administrative system to compensate patients and a complementary system to detect and prevent medical injuries. To this end, the Congress should provide support for demonstrations and evaluations of binding alternative dispute resolution systems, enterprise liability, and alternative standards of compensability including no-fault. The federal government should support research on medical injuries and efforts to design and test systems to prevent injuries.

Proposals to require a certificate of merit, use pretrial evaluation panels, and accord special legal status to practice guidelines need to be better tested and understood before

they warrant being federally mandated. The Commission recommends against unconditional adoption of the rule that would require the losing party to pay the winner's legal costs, but variations of this rule may be worth investigating in certain contexts. The public should not be given access to the medical liability information in the National Practitioner Data Bank.

This chapter first discusses the problems with the current medical liability system and their underlying causes. A possible future liability system is then described that would represent a significant improvement. The chapter then analyzes proposed tort reforms to improve the functioning of the current system while the future system is being developed. This section also describes the results of a study performed for the Commission on the role of practice guidelines in malpractice litigation, and addresses the role of enterprise liability. The components of the new system envisioned by the Commission are then discussed. These include an efficient alternative dispute resolution (ADR) system, a reliable standard for compensation decisions, and systems to prevent injuries and improve quality of care. The chapter concludes with an analysis of the role of the medical liability information contained in the National Practitioner Data Bank.

THE TASK FOR REFORM

The Commission described the goals and shortcomings of the medical liability system in depth in its *Annual Report to Congress 1991* (PPRC 1991). Reducing the frequency of medical injury is the system's most important goal. Although medical care in the United States is generally of high quality, the incidence of preventable medical injury is higher than acceptable (Brennan 1991; Bovbjerg 1992). A second goal is to compensate fairly those patients who experience a medical injury. Relatively few negligently injured patients are being compensated today, and the awards are highly variable (Localio et al. 1991). Besides failing to meet these goals, the existing medical liability system promotes the practice of defensive medicine and may impede efforts to improve the cost effectiveness of care (Morreim 1987). Further, the legal system's inefficiency results in high administrative costs and long delays in claims resolution. Reform must address these deficiencies.

Medical liability reform must be informed by an understanding of the underlying causes of the problems with the system. The ability of the health care system to reduce the number of injuries is limited by its failure to collect and analyze data on errors and injuries. This information is needed to design and implement systems to prevent medical injuries. At present, most injuries do not result in claims, and databases are largely fragmented (Localio et al. 1991). Knowledge about the causes and prevention of medical injury is scarce. In addition, incentives for practitioners, institutions, and health care organizations to report injuries and participate in formal injury reduction efforts need to be strengthened.

Compensation for negligent injuries is not consistent, timely, or proportionate to losses (Danzon 1985; GAO 1987). Relatively few who would qualify for compensation seek it (Localio et al. 1991). The concept of negligence (fault), which is used to determine whether compensation is due, is vague and

difficult to apply reliably to individual cases (Brennan et al. 1989). Most importantly, awards for noneconomic damages are highly subjective and variable (Metzloff 1991). Their unpredictability impedes settlement.

The provision of cost-effective care may be deterred to the extent that the medical liability system requires (or is perceived as requiring) the delivery of more expensive care than would be desired by those ultimately bearing its costs. The resulting costs are hidden to the extent that the standard of care inherent in medical notions of good practice is too high (Havighurst 1991). The legal standard of care results from ad hoc decisions of juries, the retrospective opinions of expert witnesses, and professional practices that may be influenced by other incentives to increase the delivery of services (Bovbjerg 1992). Some health care practices may be driven by perceptions or misperceptions of possible legal liability. Liability considerations may hinder efforts to reduce the delivery of inefficient or ineffective care. This concern is behind proposals to provide special legal protection for providers who follow designated practice guidelines (Smith 1993).

Defensive medicine represents unnecessary or inefficient care delivered to reduce the risk of being sued or paying damages. Its extent and cost are unknown but may be substantial (OTA 1994). Several factors may contribute to defensive medicine. The negligence standard does not provide a good prospective guide to decisionmaking. Physicians often disagree about the required standard of care in particular cases (Brennan 1989). Furthermore, judgments of negligence after an injury are biased by knowledge of the adverse outcome, so what may seem to be appropriate care at the time may later be deemed negligent (Caplan et al. 1991). In addition, physicians probably apply the standard differently than do juries. Judgments of liability that are inconsistent across similar cases, made by lay juries meeting one time, may contribute to defensive medicine. The medical profession's lack of agreement about what care is effective, as well as misperceptions of physicians about the legal standard of care, are also contributors.

The high administrative costs of the current medical liability system result from the formal processes for discovery of information, preparation for and conduct of the trial itself, and the use of expert witnesses. These reflect the need for extensive information and understanding that is associated with an inquiry into medical causation and individual fault. Factors reducing the predictability of a claim's outcome impede the chances for settlement before the high costs of trial are incurred. These include problems with the negligence standard and with juries' determinations of fault and damages. High procedural costs are barriers to filing claims for many potentially compensable injuries, particularly those that are less serious or that entail relatively minor economic losses.

TOWARD A MEDICAL LIABILITY SYSTEM OF THE FUTURE

The problems with the medical liability system are so pervasive that only a profoundly different system offers the potential for significant improvement. A proven model for such a system does not currently exist in the United States, but a possible future system is outlined here. The system would have two components. One would be a fast, efficient administrative compensation mechanism that

would provide adequate awards to patients who experience preventable medical injuries. The other would be a complementary system for monitoring, quality review, and design and implementation of measures to reduce the rate of injury. Self-insurance or experience rating for health care organizations would provide incentives to prevent injuries. An important feature of the proposed system is that decisions about compensation and quality of care in individual cases would each be made by a process designed specifically for that purpose. Clear, reliable criteria for compensability and for damages awards would be established, whereas judgments about quality of care would be made in forums better suited to make those determinations.

The administrative compensation system would provide access for as many valid claims as qualify, yet control the compensation levels to keep the system affordable. Compensation would take into account payments from other sources for losses due to injury, and noneconomic damages would be more standardized and predictable. Enhanced access would be achieved by lowering economic and other barriers to filing claims, ensuring legal representation, and helping patients realize when they have experienced a potentially compensable injury. Injuries would also be detected by data-based surveillance and by encouraging or requiring the participation of providers in identifying and reporting potential injuries. Nonmeritorious claims would be screened out early, and the overall process would be expedited and efficient. It is possible that an even simpler, less formal process could be instituted for smaller claims. Compensation would be based on a more reliable standard than negligence, such as avoidability of the injury or no-fault.

The injury prevention and quality improvement system would receive information from the compensation system, its own surveillance mechanisms, and reporting from health care professionals. It would collect and analyze data on injuries, thereby facilitating the design and implementation of system interventions. Health care organizations would be self-insured or medical liability insurance premiums would be experience-rated to provide strong incentives to prevent injuries. Ideally, this system would be part of a broader continuous quality improvement system that spans the full range of practice sites. The system would have an appropriate balance of public and professional input.

Putting this system in place would entail considerable developmental work; even then, it may not be feasible to institute it as described. Its components could, however, be developed in an evolutionary manner and implemented individually. To pave the way for this system of the future, the Commission's recommendations focus on:

- improving the functioning of the current system,
- developing and using efficient alternative dispute resolution systems for compensating injured patients,
- formulating and testing more reliable standards for compensation decisions, and
- collecting better data on medical injuries and improving systems to prevent injuries and improve quality of care.

The federal government should play a role in all four of these areas.

IMPROVING THE FUNCTIONING OF THE CURRENT SYSTEM

This section analyzes proposals to improve the performance of the current medical liability system, including various tort reforms, according special legal status to practice guidelines, and enterprise liability.

Tort Reforms

Tort reforms are changes in the legal rules governing malpractice lawsuits. They comprise the bulk of the medical liability reforms commonly proposed. Widespread implementation of tort reforms would not in itself solve many of the underlying problems of the medical liability system, which persist even in states that have already adopted many tort reforms. Tort reforms would not address, for example, the problems inherent in the negligence standard; consequently, they are not likely to make the underlying standard of care more cost effective or reduce defensive medicine (OTA 1994). They are not expected to reduce the rate of medical injury. Some tort reforms, however, could help the medical liability system operate more efficiently and consistently until more fundamental changes are made, and they can be instituted immediately. In the short run, these changes would be beneficial for the health care system as a whole. In addition, some tort reforms are prerequisites for the medical liability system of the future outlined in this chapter.

Tort reforms have been enacted inconsistently by the states. It is unlikely that they will be adopted uniformly, and some have been declared unconstitutional by some state courts. For tort reforms to be implemented across the board, either federal preemption of state law is required, or states need to be given strong federal incentives to adopt the reforms. A third alternative is to authorize individuals or groups of patients to agree by contract with physicians or health care organizations to adopt whichever set of reforms is mutually acceptable (Havighurst 1989). This, however, would not ensure the widespread implementation of tort reforms. The Commission believes the case for certain tort reforms is sufficiently compelling that they should be federally mandated.

If tort reforms were enacted in isolation, however, their benefits would come at the expense of some injured patients. Some awards would be reduced, and access to legal representation for some potential claimants may be hindered if strict limits on damages and contingency fees were adopted. Ideally, tort reforms should be adopted as part of a broader reform package that includes expanded access to well-functioning alternative compensation mechanisms, better systems to prevent injuries and improve quality of care, and other measures that would help patients.

The following discussion analyzes the merits of proposed tort reforms. If they are adopted, it would be important for the federal government and others to fund studies of the effects of the reforms on the rate of medical injuries and on patients' rate of claims and compensation for injuries.

Schedules for Noneconomic Damages. Much of the unpredictability and inconsistency that characterizes today's medical liability awards is because of noneconomic damages (i.e., pain and suffering), which account for about 50 percent of total payments (Metzloff 1991). Such damages are highly subjective. Reducing this unpredictability and eliminating the potential for unreasonably high awards would improve decisionmaking during the course of a lawsuit and promote settlement. Almost half the states have no statutory limits on noneconomic damages.

Awards for noneconomic damages should be rationalized by reasonable schedules. The schedules would set acceptable ranges for awards for carefully defined categories of injuries. Schedules establish a different limit for each grade of injuries, which is preferable to a single absolute limit that may be too high for some injuries and too low for others. Until a schedule is developed, however, it may be desirable to adopt a single interim absolute limit on noneconomic damages.

Schedules for Attorneys' Contingency Fees. The typical contingency fee paid to the claimant's attorney out of an award is about one-third of the recovery. Contingency fees should be limited so that they better approximate the work performed by the lawyer. About half the states have restricted contingency fees in some manner, including 11 that have enacted specific fee schedules or sliding scales based on the recovery amount. Fee reductions possibly may restrict access to legal representation for those with small claims or uncertain chances for recovery, although this problem could be minimized if the schedule permits greater percentages for smaller awards. In addition, it is desirable to discourage those claims that have little chance of success but are pursued simply because the potential attorney's fee is unreasonably large. The Commission recommends reasonable schedules for attorneys' fees so that most of an award goes to the patient.

Modification of the Collateral Source Rule. The collateral source rule prohibits the consideration of other payments, such as those from health or disability insurance, received by a claimant for losses due to an injury. These sources of payment tend to operate more efficiently than the medical liability system, permitting more money to be devoted to compensation and less to administrative costs. Nearly half the states have not modified the collateral source rule. Reducing medical liability awards to offset collateral source payments is consistent with the compensation function of the medical liability system (although in theory it weakens general deterrence of injuries because the provider does not bear their full cost).¹ Offsets of awards for collateral source payments are advisable under the current medical liability system. They would be vital to the affordability of a future, more inclusive administrative system for compensating medical injuries.

Restrictions on Joint and Several Liability. In cases with more than one defendant, the doctrine of joint and several liability holds any defendant responsible for the full award if any other defendants cannot pay their shares apportioned by fault. This rule is designed to ensure adequate compensation for the injury, even though it penalizes defendants who have to pay more than what would be warranted by their share of fault. Some 31 states have placed restrictions on joint and several liability.

¹ The patient's cost of obtaining the collateral source payments (e.g., premiums for disability insurance) should be reimbursed to preserve the incentive to obtain insurance for such losses.

Some have adopted a threshold of degree of fault below which joint and several liability does not apply; others have abolished joint and several liability entirely for noneconomic damages.

Practitioners and entities with adequate insurance or resources to pay medical liability awards do not want to pay the full amount of an award when their contribution to fault is minor or negligible. But it should be recognized that limits on their liability may come at the expense of adequately compensating injured patients. The Commission recommends that a balance be struck by adopting thresholds for the application of joint and several liability.

Periodic Payments of Large Awards for Future Damages. More than half the states require that larger awards for future damages be paid in installments over time. It is best if the payments are tailored to meet specific future needs. An annuity can be purchased to meet continuing needs resulting from permanent injuries. Annuities also permit tax-advantaged investment of an award. The Commission considers periodic payment for future damages beneficial.

Reductions in Long Statutes of Limitation for Minors. These laws limit the time period, after an injury is or should have been discovered, during which claimants can file a lawsuit. If the allotted period expires, a claim is barred even if it clearly has merit. Most states allow a longer period for minors, often until the age of majority. Long statutes of limitation create uncertainty, delay, and expense in insuring against medical liability claims. Birth-related injuries are the principal source of problems. Eight years is a safe period to allow detection of perinatal injury, and shorter periods are defensible.² States that have longer statutes of limitations for minors should be required to reduce them to eight years at most.

Punitive Damages. Punitive damages are rarely justified in medical liability cases. They are requested far more often than they are awarded (Metzloff 1991). Judges frequently reduce excessive or unjustified punitive damages awards.

Three reforms have been advocated with respect to punitive damages. The first is that part or all of punitive damages awards be diverted to quality improvement activities. The rationale for this is that punitive damages, by definition, are not compensatory in nature: They are not “needed” by the plaintiff. Their purpose is to deter others from similar conduct, thus protecting future patients from injury. Consistent with this rationale would be to use the money from these awards directly for injury prevention or quality improvement activities. The Commission encourages the diversion of a portion of punitive damages awards for these purposes.

The other two reforms would limit the amount and frequency of punitive damages. One proposal would raise the standard of proof required to receive them, from a preponderance of the evidence to clear and convincing evidence. The argument for this is that the greater penalties represented by punitive damages should be meted out only if proof is more certain than is required for ordinary

² Cerebral palsy can usually be diagnosed by three years of age; difficult cases can be diagnosed by the age of five (Stanley and Watson 1985).

negligence. This rationale, although plausible, applies to punitive damages in all contexts, not just medical liability. The second reform would limit punitive damages to a multiple of economic losses (such as two or three). This seems more applicable to other liability contexts, such as product liability, where punitive damages are a greater issue. In addition, there is no inherent relation between punitive damages and economic losses. Although changing the standard of proof and limiting punitive damages may seem reasonable, the Commission believes the case for these more fundamental changes in legal rules should be made on a broader basis than medical liability. Alternatively, convincing evidence should be put forward that there is a special need for these reforms in the medical liability arena.

Certificate of Merit. A certificate of merit is a requirement that an independent medical expert review the medical record and certify that a claim is worthy before a formal lawsuit can be filed. The intent is to screen out meritless claims before they are even filed. Although the idea has promise, more needs to be learned about the benefits and drawbacks of certificate of merit programs before they warrant being federally mandated.

The potential problems that must be avoided include adding another costly step to the litigation process without corresponding benefits, and screening out potentially meritorious claims too early. Plaintiffs' lawyers may require their clients to pay for this initial expert evaluation, which would be difficult for low-income plaintiffs who generally sue less frequently than wealthier ones (Morlock 1990; Burstin et al. 1993). It is often difficult to judge at a case's inception whether it is likely to be successful, because key information often is not available in the medical record and must be obtained through the legal process. If the certificate of merit requirement is too strict, some cases that eventually would be successful might be screened out simply because of incomplete information. The test should not be whether the claim is likely to succeed. Rather, the criterion should be some minimum threshold of the probability of success, or a probability of success given additional information not in the medical record. It may be difficult to develop criteria that would not squelch meritorious claims, yet be strict enough to reduce significantly the number of nonmeritorious claims that proceed to litigation.

Pretrial Evaluation Panels. These provide an objective opinion on the merits of the case after all of the pertinent evidence has been obtained (a certificate of merit requirement, by contrast, applies before the claim has even been filed). This is to encourage settlement before the parties incur the delay and high cost of preparation for trial and the trial itself. As an additional inducement to settle, the panel's opinion can be given evidentiary weight in a subsequent trial. If the case does not settle, however, pretrial evaluations may only serve to add the delay and expense of a mini-trial to those of the real one. To the extent that they can provide a relatively quick and inexpensive judgment on the merits of the claim, they could potentially increase the number of claims pursued past the initial filing. The states' experiences with these programs have been mixed. In Maryland, for example, a mandatory but nonbinding arbitration panel hearing seems to have been beneficial (Morlock 1990). In Arizona, by contrast, panels similar to those in Maryland were found to increase the number of claims brought to formal adjudications and to add to the cost and time it took to resolve them (Shmanske and Stevens 1986). Pretrial programs were discontinued in 11 states because they were

inefficient or infringed on the right to trial (Lowe 1994). The Commission believes more needs to be learned about how early evaluation systems can best be designed before they warrant becoming federally mandated.

Shifting Attorney's Fees to the Losing Party. The so-called English rule forces the losing party to pay the attorney's fees of the winning party. The intent is to discourage meritless claims and to encourage settlement by providing an incentive to litigate only strong cases. The Commission believes, however, that adoption of an unmodified English rule would have detrimental effects. Although the proposal appears to treat plaintiffs and defendants identically, in fact it would favor defendants. The high cost of litigation would mean that low- and middle-income persons could not risk filing a claim, or there would have to be exceptions for persons who could not afford to lose—probably the majority of the population. In addition, defendants' insurance companies can spread the risk of losing over many cases. Plaintiffs face an all-or-nothing result in one case only. This can make the same risk of loss less desirable for them. Further, the rule should not be applied before the completion of the discovery process in which each side learns of the evidence and opinions that support the opposing position. It is impossible to judge the strength of each side's case without that information. Typically, before discovery is complete, it is the defense that has the most information about the care that was given. Therefore, application of the English rule too early in a case would favor defendants. Because of these considerations, the Commission recommends against unconditional adoption of this rule.

The intent of the rule—to force litigants to take a hard look at their case and proceed only if it is strong—is laudable, and there may be contexts in which a modified English rule would be beneficial. Once the process of discovery is complete and final settlement offers have been exchanged, or a pretrial evaluation system has rendered a judgment, the rule might apply to legal costs incurred by further litigation if the final result turns out to be worse than if the other party's settlement offer or the judgment had been accepted. If the plaintiff offers to settle the case for \$500,000 and the defense offers \$200,000, for example, the plaintiff would pay the additional defense costs if the final award were less than \$200,000 and the defense would pay the plaintiff's supplemental costs if the final award exceeded \$500,000. Another suggested modification would be to limit the payment for legal expenses to a percentage of the party's income or assets. This would help compensate for the imbalance between plaintiffs' and defendants' resources. These and other modifications should be explored further.

Practice Guidelines and Medical Liability Litigation

With practice guidelines becoming more integrated into medical practice, more attention is being focused on their relationship to the medical liability system. There are two areas of interest. One is whether the system impedes the use of practice guidelines by health care providers to improve the appropriateness and cost effectiveness of care. Another is the effects that practice guidelines have on the process and outcomes of malpractice litigation. This section analyzes these topics and describes the results of a Commission-sponsored study of the use of practice guidelines in malpractice litigation.

The Relationship of Practice Guidelines and the Medical Liability System. How practice guidelines are treated in the medical liability system has important implications for their success in promoting the delivery of appropriate, cost-effective care. Practice guidelines could provide an important legal support for physicians and health care organizations that use them to provide less costly but appropriate care. But reinterpretation of practice guidelines by the judicial system could render practice guidelines ineffective in helping to control costs and improve quality. In response to this concern, states are providing or planning to provide special legal status to practice guidelines to facilitate their use by defense attorneys, and thus encourage their use by physicians (GAO 1993).

Theoretical reasons have been advanced why practice guidelines may help to improve the functioning of the medical liability system (Garnick et al. 1991). Guidelines can make clear the applicable standard of care, which is a troublesome issue in many medical liability cases. They might also lessen the need for expert testimony on the standard of care, thus avoiding a battle of the experts. Guidelines may increase the number of legitimate claims by helping make clear to injured patients and their lawyers that a standard of care was breached. They may also help dissuade attorneys and potential claimants from filing groundless claims. But several factors might prevent any improvement in the medical liability system resulting from the use of practice guidelines. The topics on which guidelines are being developed probably are irrelevant to the circumstances leading to most medical liability claims. Guidelines might be revised or reversed by the judicial system, either explicitly or by the creation of exceptions that effectively vitiate them and reduce their value as prospective guides to appropriate care. In addition, increased litigation might result from questioning the validity of guidelines or the circumstances under which exceptions are warranted. Further, guidelines might be construed to create a firm standard of care when one is neither intended nor appropriate. Finally, the need for expert testimony might stay the same or even be increased.

The Harvard Study of Practice Guidelines in Malpractice Litigation. Because little is known about the use of practice guidelines in malpractice litigation, the Commission engaged Harvard University researchers to conduct a study to provide empirical information on this topic (Hyams et al. 1994; Hyams et al. 1995).

The study had three elements. The first was a review of published judicial decisions that concern practice guidelines. A computerized search located 32 cases in which practice guidelines were used: 23 by the plaintiff (claimant) and nine by the defendant. Plaintiffs won 17 of the 23 cases in which their lawyers used the practice guideline, while in six of nine cases a practice guideline was used successfully by the defense. The majority of the cases involved practice guidelines promulgated by the American College of Obstetricians and Gynecologists.

The second component of the study was a review of medical liability claims files to determine how often guidelines were used in actual medical liability cases, and to discover how they were used. The claims files of two medical liability insurance companies were randomly sampled (with oversampling of anesthesia and obstetric claims) and 259 claims were reviewed. Only 17 (7 percent) involved the use of practice guidelines, 11 of which were obstetric cases. In 12 of the cases the practice guidelines were introduced by the plaintiff's lawyer, and in four they were used by the defense (one case was indeterminate).

The third part of the study was a survey mailed to a random sample of 960 plaintiff and defense medical liability attorneys in the United States. Of the 578 respondents (60 percent response rate), three-quarters were aware of practice guidelines. Half of the respondents had at least one case each year in which guidelines played a role, and a high proportion reported that the use of guidelines was increasing. The majority of the cases involved care that departed from the guideline. While most of the attorneys reported that the need for experts in the practice guideline cases had not changed, 5 percent said it had decreased, and 12 percent said it had increased. Of the attorneys representing plaintiffs, one-quarter stated that a guideline had influenced their decision not to take a case in the past year; one-quarter of all the attorneys noted that a guideline had influenced their decision to drop or settle a case. Finally, one-quarter also said that a guideline had influenced the decision of a jury or judge in at least one case during the preceding year.

Several conclusions can be drawn from this study. Practice guidelines are playing a modest but increasing role in malpractice litigation. Obstetric guidelines are most frequently being used, probably because they are among the oldest and best known to physicians and lawyers. Guidelines are being introduced more often by plaintiff than by defense attorneys, possibly because guidelines may provide cheaper or stronger evidence of the standard of care than expert testimony. The use of guidelines by either side is usually, but not always, successful in malpractice litigation.

Although the effects of guidelines on the litigation process are varied, overall they seem positive. Guidelines helped judges and juries reach decisions, but there was not much change in the need for expert testimony. Even though the overall effect of guidelines on the amount of litigation cannot be assessed, they may well have led to better decisions to take, settle, or drop cases. Future monitoring and research are needed to assess whether guidelines are being used appropriately in court, including whether disputes about their content or their applicability to individual cases are frequent and result in undue legal revision of guidelines. The results should inform how guidelines are derived and drafted.

Some states have given guidelines special legal status in medical liability cases. Their experience should be assessed, paying particular attention to whether these actions have promoted or impeded the appropriate use of guidelines in litigation and in patient care. Maine is in the third year of a program to test the effects of approved practice guidelines on litigation and medical practice. Designated guidelines can be introduced by the defense in medical liability litigation, while plaintiffs are barred from doing so. This asymmetry was believed necessary to induce physicians to participate in drafting and following the guidelines, but this aspect of the program is likely to be challenged in court. The guidelines themselves have not been used in any court cases to date, but the number of cervical spine X-rays ordered by emergency department physicians reportedly has dropped because of one of the guidelines. Formal evaluations of the guidelines' effects on medical practice are under way.

Enterprise Liability

Enterprise liability occurs when a health care organization assumes financial responsibility for all negligent injuries to patients under its care, thereby relieving individual practitioners of all personal tort liability for such injuries (Abraham and Weiler 1994). It already exists for hospitals owned and

staffed by one organization, such as a health maintenance organization (HMO) or a typical university or county hospital, and for those that provide, or channel, medical liability insurance to their affiliated staff.

Enterprise liability is thought to offer two benefits. First, administrative costs are lowered because there is only one defendant (the enterprise) instead of multiple defendants who may require separate lawyers and investigations. Additional savings also result from eliminating the need to maintain many separate individual and corporate medical liability insurance policies. Second, enterprise liability is thought likely to improve the prevention of medical injuries. It places the burden of injury detection and prevention on an entire entity or system that delivers care, one that can devote more resources—and use them more effectively—to accomplish these tasks than individual physicians acting separately. It is possible, however, that enterprise liability on balance weakens the deterrence incentive because it may lessen individual physicians' sense of direct personal responsibility for medical liability claims.

The debate is theoretical at this time because of the absence of relevant empirical evidence. Policymaking would be improved if there were empirical evidence that enterprise liability reduces costs and enhances quality of care. Federal support is thus warranted for demonstration projects and evaluations of enterprise liability systems.

It would be inadvisable to impose enterprise liability on systems that are not unified enterprises, but this should not be necessary. The growth in integrated delivery systems will undoubtedly lead to greater prevalence of enterprise liability. Enterprise liability is also the end result of the movement in legal doctrine toward holding hospitals and other health care organizations responsible for negligent injuries to patients (Weiler 1991). As described above, the consequences of this trend on medical liability administrative costs and on the prevention of injuries need to be better understood.

COMPONENTS OF A FUTURE MEDICAL LIABILITY SYSTEM

The preceding recommendations for tort reforms would help improve some of the deficiencies of the medical liability system. They would not, however, address two underlying causes of the problems with the medical liability system: reliance on the court system, and use of the negligence standard to determine both the standard of medical care and eligibility for compensation. The future medical liability system envisioned by the Commission would utilize an efficient administrative system to resolve claims on the basis of a standard for compensation that is more reliable than the current negligence standard. Such a system would be helpful for monitoring quality of care and implementing programs to prevent medical injuries.

Alternative Dispute Resolution Systems

Significant improvement in processing medical liability claims can occur only outside the courtroom. Administrative systems and other alternative dispute resolution methods offer the potential for

resolving medical liability claims more quickly, efficiently, and consistently (Johnson et al. 1989). A variety of ADR mechanisms have been developed, including arbitration and mediation. Administrative systems not only may give potential claimants easier access to compensation, but also use alternative standards for compensation (discussed in the following section). The future compensation system anticipated by the Commission would rely on an administrative system to process claims. Most medical liability reform proposals encourage or require the use of alternative dispute resolution.

Several possible features of ADR mechanisms may improve the resolution of medical liability suits. If decisions were made by someone with experience (as could be the case with ADR), they might be of better quality, have more precedent-setting value, and be more consistent. By contrast, a jury meets only once; it has no firsthand experience to draw upon in deciding cases and no access to written decisions for other similar cases. A jury does not have to justify its decision, nor is it accountable for its performance. If decisions were written and accessible, they would likely be more consistent and predictable. Inconsistencies among cases could be resolved by an appeals process, and the relevant standard of practice would then be known prospectively by health care providers. An administrative decisionmaker may be more likely to understand and honor the recommendations of good practice guidelines.

Little is known about the efficacy of ADR in medical liability. The experience of several Kaiser Permanente health plans with mandatory binding arbitration reportedly has been favorable, although data comparing their experience with standard litigation have not been published. Kaiser Permanente states that litigation costs of arbitration are less because the hearings are much shorter than jury trials. In addition, compared with public trials, private arbitration hearings are less burdensome for Kaiser Permanente physicians. Cases appear to be resolved faster than comparable cases litigated in the courts (Felsenthal 1994). Awards are reportedly similar to those of jury verdicts, except that extremely large awards are less common. Kaiser Permanente has discontinued arbitration in at least one region, however, because it considered the quality of the available arbitrators insufficient and it had received numerous complaints by consumers and regulators (Lowes 1994).

Despite its potential, alternative dispute resolution has a number of possible drawbacks. The constitutional right to a jury trial is a potential barrier to requiring the use of binding ADR, although voluntary contractual arrangements may be upheld. If the result reached through ADR is not binding, the method could merely impose significant additional delays and costs on an already slow and expensive litigation process.

One of the judicial system's most important features is its perceived impartiality and the degree of control accorded the parties over the litigation process. This is especially important to injured claimants, who may feel less powerful than the provider or system they are suing. In administrative or ADR systems, the decreased amount of formal procedural protection makes the need for objectivity even more important. Although using experienced personnel can be advantageous, it can be difficult for them to remain unbiased when dealing with a few large repeat players such as medical liability insurers and health plans. In at least one nonmedical context, mandatory binding ADR is seen as biased in favor of defendants (Jacobs and Siconolfi 1995).

Further, each type of ADR method is more useful in some situations than in others. There is little experience in tailoring the use of ADR to the needs of particular cases. The quality of any ADR process depends heavily on the personnel involved. Finally, ADR systems may evoke counterproductive behavioral responses, which are difficult to predict in advance. For example, if final adjudicatory hearings are cheaper, easier, and faster than jury trials, cases that otherwise would have been dropped or settled might proceed to such hearings. This would lengthen rather than shorten delays in resolving cases.

In view of these uncertainties, it is premature to require that all medical liability claims be resolved through ADR. An ideal scenario would be the development of ADR systems advantageous to plaintiffs and defendants alike, so that both would voluntarily agree to use them and be bound by the result. Demonstrations and evaluations should be supported by the federal government to learn more about how these systems can best operate. Workable methods need to be devised to permit easier access for potential claims while rejecting nonmeritorious claims early. Incentives for settlement should be used. Among the issues that require study are the length of time needed to resolve cases, the system's efficiency and ability to improve access for claims, and the objectivity and quality of the judgments.

Alternative Standards for Compensation

The negligence standard does not appear to be a good guide to decisionmaking by providers and juries. Possibly, more reliable standards for liability could be developed, such as ones based on no-fault or avoidability of the injury. Such standards must be tested for their reliability and their effects on the number and size of claims paid.

No-Fault. A no-fault standard would compensate patients whose injuries resulted from medical care, even if the care met current standards. The determination of eligibility for compensation would be simplified by dispensing with the need to determine the standard of care and whether it was breached. The main issue would be whether the injury resulted from medical care. Evidence from one study suggests that such judgments of causation can be made more reliably than judgments of negligence, although some difficulties would remain because the adverse effects of treatment must be distinguished from the underlying illness (Brennan et al. 1989). Definitional problems may occur if the universe of compensable injuries is further limited, such as excluding unavoidable failure of treatment from compensation.

The principal fear raised by a no-fault system is that vastly larger number of injuries might become eligible for compensation. Awards would have to be restricted to keep the system affordable. The Harvard Medical Practice Study investigators concluded that the cost of a hypothetical no-fault system in New York State would be comparable to that of the current system, for example, but they assumed that compensation was restricted to net economic losses experienced more than six months after the injury. They also excluded all noneconomic damages (Weiler et al. 1993). The cost estimates were not very sensitive to either assumption, however, and they included a generous amount for economic losses arising from lost household production—a type of damage that might be excluded in

an actual no-fault system. Because a no-fault standard is so new and the administrative costs of using it sufficiently unknown, however, it should be tested first in a demonstration in the United States. When comparing results across systems of care, demonstrations should employ methods to adjust rates of injuries and levels of compensation for differences in the health systems' patients—especially age—that influence the likelihood and severity of injuries.

Avoidability. Some errors in care are not negligent. For example, a mistake in considered professional judgment is often deemed not to be negligent. Whereas in hindsight an injury might have been avoided, having missed the opportunity to prevent it is not necessarily negligent. It may be easier to determine whether an injury was avoidable—by some measure of probability—than whether failure to avoid it was due to negligence.

A standard based on avoidability is appealing because it compensates patients for injuries that need not have occurred. It also would focus prevention efforts on the full range of preventable injuries. Fewer claims would be compensated than under no-fault, which would help keep the system affordable. For example, a particular treatment may entail a known but unavoidable risk of a serious injury or complication. Patients who experience an adverse outcome from the treatment would be compensated under a no-fault system, but not under a standard based on avoidability. However, more claims would qualify for compensation under an avoidability standard than under a negligence standard.

An avoidability standard would offer other advantages as well. It shares with no-fault the advantage of not conditioning compensation on a judgment about whether the care was substandard.³ Compensation for an injury would not itself mean that the care was negligent; that determination would need to be made through another mechanism. That compensation would not depend on judgments about quality of care could reduce inappropriate defensive medicine practices and improve providers' confidence in the system. At this time, there is no information on the reliability of such a standard, but it may be more reliable than the negligence standard.

BETTER PREVENTION OF MEDICAL INJURIES

The prevention of medical injuries is a difficult task that requires considerable resources and a systematic approach. The general deterrence incentive provided by the threat of legal liability is not sufficient to reduce preventable injuries to a minimum. In part, this is because the general incentive for physicians not to be negligent must be translated by individual physicians into the particular ways in which they try to avoid injury. Isolated lapses in vigilance inevitably happen, and it is difficult for individual physicians to learn from the relatively few occurrences about which they may be aware. In

³ The accelerated-compensation event (ACE) proposal attempts to spell out an avoidability standard for certain injuries (Tancredi and Bovbjerg 1991; Bovbjerg et al. 1991). ACEs comprise a list of avoidable adverse outcomes of care that are designated in advance to be compensable. The current malpractice system would continue to govern compensation for all other injuries. An ACE system that applies only to a subset of injuries, however, may generate disputes about which system covers the injury.

any case, since the general deterrence incentive is already in effect, specific measures designed to prevent injuries are needed to reduce their rate of occurrence further.

A systematic approach to injury prevention is likely to be more effective than relying purely on general deterrence. Risk management activities within hospitals, for example, have been shown to be associated with fewer medical liability claims (Morlock and Malitz 1991). Effective injury reduction programs require the collection and analysis of data, as well as the design and implementation of effective interventions.

Data Collection

Better data are needed to help detect preventable injuries and determine their causes. Data usable for injury reduction have come principally from closed claims files of medical liability insurers. Only a fraction of avoidable injuries results in claims that are included in such files; often, the information about each claim is limited. There is also a substantial time lag for claims files to accumulate information, since they depend on the legal process. The National Practitioner Data Bank (NPDB) in theory contains a complete listing of medical liability claim payments, but the information on each claim is not coded in a way that is useful for prevention efforts.

Early warning systems, confidential voluntary reporting, and active surveillance are needed to detect as many preventable injuries as possible, not just those that result in claims. The basic epidemiology of medical injuries, a focus of the Harvard study in New York, needs to be delineated more generally. Methods to describe the etiology and nature of injuries are in their infancy. Coding systems need to be developed to permit this more abstract information to be entered into computerized databases. Because many events need to be collected and analyzed to detect patterns of rare events, local databases must be compatible to permit merging.

The best information source concerning care-related problems is the caregivers themselves. Despite its importance, data-based surveillance—no matter how well designed—is not sufficient. Many of the preventable injuries that practitioners could report are not discoverable in the medical record simply by using standard screening techniques. Early warning and reporting systems for medical injury have been effective in identifying, soon after their occurrence, many of the injuries that result in claims (Lindgren et al. 1991).⁴ A trial of confidential voluntary reporting of potentially preventable injuries to a hospital or other responsible organization showed promise (Brennan et al. 1992). Incentives for voluntary reporting may need to be created, and the culture of medicine with respect to errors needs to be transformed (Leape 1994). The confidentiality of voluntary reporting of injuries, as well as participation in peer review and injury prevention activities using those data, needs to be strictly protected by state and federal law.

⁴ There are additional benefits to early identification of patients injured by medical care. Any needed remedial or rehabilitative treatment can be provided sooner. Claims can be resolved earlier. A better, contemporaneous evidentiary record can be created and preserved, which can help improve the accuracy with which liability determinations are made.

Design and Implementation of Interventions

When preventable medical injuries are detected and their causes understood, ways must be devised to prevent repetition of such occurrences. These interventions can be either cognitive or procedural. The education of providers is important: Cognitive interventions make sense intuitively to address cognitive mistakes. However, errors that cause injury are often due to isolated lapses that are difficult for individual health care workers to eliminate. In addition, some injuries are caused by problems in health care delivery systems and procedures rather than by an individual caregiver's mistake (Leape et al. 1991).

Systems or process interventions are likely to be even more effective at preventing injuries than education alone. A number of mechanisms to reduce injuries should be designed into health care systems, including reduced reliance on memory, improved information access, error proofing, standardization of processes, and buffers for error that prevent injuries from resulting (Leape 1994). One successful assessment and intervention program for claims-prone physicians focuses on office organization and practices to reduce the rate of medical liability claims (Frisch 1991). Administrative policies and medical practice guidelines can be designed to minimize the risk of avoidable injury. Guidelines for intraoperative monitoring of blood oxygen saturation, for instance, have reduced the number of hypoxic injuries during anesthesia (Keenan and Boyan 1991).

Integration with Quality Improvement. After possible preventable injuries are identified, individual cases must then be reviewed. These activities are best performed in conjunction with the organized quality assurance and improvement programs. Structures to conduct these functions do not exist for fee-for-service plans. Hospitals are logical places to detect and prevent problems with inpatient care, but outpatient care is becoming increasingly important and is more difficult to monitor. The growth of integrated delivery systems could facilitate the review of outpatient care. Local quality improvement foundations have been proposed to address the problem of fragmentation of information and practice across providers, sites of care, and health plans (Oberman 1994a; Oberman 1994b). They would permit collecting and reviewing data from the full range of medical practice in an environment conducive to quality improvement.

The Role of the Federal Government. The federal government should ensure that practitioners, hospitals, and health care organizations engage in effective efforts to reduce medical injuries, including those caused by negligence. These activities should be a required part of quality assurance and improvement programs of practitioners and health care organizations, and should encompass both inpatient and outpatient care. The federal government should support research on the etiology, classification, and prevention of medical injury. Support should be given to the development of the necessary databases and to efforts to reduce the incidence of medical injury.

Permitting Public Access to Information About Medical Liability Payments. One strategy that has been suggested to protect patients from negligent injuries is to provide them with access to the physician-specific information about medical liability payments contained in the National Practitioner Data Bank (Pretzer 1994). The NPDB information is now available only on a confidential basis to

hospitals and other qualified health care institutions for physicians who have staff privileges or are applying for them.

Some believe that consumers have a right to the information in the NPDB to help choose a physician. They argue that fears that the public will misunderstand or misuse the information are paternalistic and unfounded. Perhaps implicit in this position is the belief that the oversight mechanisms of the profession and of state licensing boards have not been successful in protecting the public from substandard practitioners.

Other considerations, however, weigh more strongly against permitting public access to the medical liability information in the NPDB. This information essentially comprises profiles of the medical liability experience of each physician. It is subject to the potential problems with profiling information that the Commission has previously discussed, including the accuracy and predictive value of the data (PPRC 1992).

The information reported to the NPDB is probably highly accurate in terms of payments to claimants (although some degree of underreporting undoubtedly occurs), but the brief description of each negligent event often does not permit a full understanding of the circumstances of the injury. Issues of causation and negligence are often complex, and it can be problematic to allocate individual responsibility for a medical injury.

The predictive value of the data is questionable. A paid medical liability claim does not necessarily represent poor quality of care, and even poor care in any particular instance does not imply incompetence with respect to that condition or procedure. A recent study found no relationship between malpractice claims and subsequent quality of care provided by obstetricians, for example (Entman et al. 1994). It would be difficult for consumers to use claims data to avoid receiving negligent medical care, because errors or even poor competence in one aspect of care are probably not predictive of problems in others (Sanazaro and Worth 1985). Paid medical liability claims are only modestly predictive of future claims. This is enough to experience-rate groups of physicians for malpractice insurance, but not sufficient to predict the future claims experience of any one physician (Rolph 1991).⁵

Permitting public access to NPDB information would be likely to adversely affect the underlying processes that generate the information. There are anecdotal reports that more physicians are refusing to settle cases in order to avoid being reported to the now-confidential NPDB. The allocation of fault among individual physicians involved in a case is problematic and difficult to convey in NPDB reports. The need to assign individual fault and report physicians to the NPDB can cause unnecessary conflicts within enterprises. These effects would be greatly exacerbated if the NPDB were opened to

⁵ The Clinton Administration's 1993 health reform proposal would have limited disclosure to physicians with multiple claims that exceed a threshold to be set by the Secretary of Health and Human Services. Although this would have better targeted physicians more likely to have future malpractice claims, the malpractice risk exposure of the physician should be taken into account. The threshold for disclosure should vary depending on the number of years of practice, whether the physician works full time, the physician's specialty, and the relative risk within that specialty of the services provided by the physician.

the public. The incidence of defensive medicine, particularly the avoidance of risks by refusal to provide high-risk services, would likely be increased.

These problems would be lessened if summary measures of medical liability claims experience, rather than physician-specific information, were reported yearly for health plans. Such information could be included on the quality performance reports intended to aid consumers when choosing among plans (see Chapter 16). This would give plans an incentive to select doctors carefully, monitor the medical liability claims experience of their physicians, and help them avoid claims. Physicians would have a greater incentive to ensure that their professional colleagues work to prevent negligent injuries. It may be useful to supplement medical liability claims information with a requirement that health plans actively monitor for preventable injuries to their patients as part of their quality assurance activities.

Before such data could be reported, however, appropriate measures must be developed to ensure comparability of the profiles among plans, including the mix of services they provide and the propensities of their enrolled populations to file and resolve claims. With some experience and research, however, meaningful indicators might be developed that would not cause adverse behavioral reactions by plans or practitioners. For example, one possible measure of a plan's performance in detecting negligent injuries might be the number or proportion of injuries that resulted in successful medical liability claims but were not first detected by the plan itself.

Ultimately, decisions concerning public disclosure of information on medical liability claims depend on judgments about whether quality of care in general—and the rate of negligent medical injuries in particular—would be improved and at what cost. At present, the Commission believes that the problems related to public disclosure outweigh the benefits.

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MONITORING HEALTH PLAN QUALITY AND PERFORMANCE

As the market evolves toward greater competition among health plans, it becomes increasingly important to assess the progress of efforts to ensure quality of care and health plan performance. In the past, the Commission described the need for a multifaceted approach to quality assurance for health plans (PPRC 1994). Components of this approach include internal quality improvement programs, external quality review, and standardized quality performance reports. Market changes have stimulated progress in each of these areas.

Efforts to monitor quality of care and the performance of health plans are accelerating during this period of rapid transition in the health care delivery system. New approaches to evaluating quality of care, such as performance reports, are beginning to take shape. Existing approaches, such as health plans' internal quality assurance programs, are adapting to the changing market for health services, in which accountability and quality improvement are key to successful competition.

The Commission is particularly encouraged by the progress of private-sector efforts to provide information about health plan quality and performance to consumers. As the Medicare and Medicaid programs increasingly encourage beneficiaries to join managed-care plans, it will be important to furnish beneficiaries with such information. Standardized performance reports would help them make informed choices among health plans. In addition, beneficiaries should be made aware of any incentives their managed-care plans use to induce physicians to provide more or fewer services than they otherwise would.

RECOMMENDATIONS

The Health Care Financing Administration should make performance reports on the managed-care plans that contract with the Medicare program available to beneficiaries to inform their choices and should encourage states to make them available to Medicaid beneficiaries. These reports should be externally validated and should include comparable data across plans. Efforts should be coordinated with ongoing activities in the private sector.

The Health Care Financing Administration should explore methods to inform Medicare and Medicaid beneficiaries about the risk-sharing arrangements that available plans have with their participating physicians. Assuming a feasible method is developed, health plans should be required to disclose these arrangements to beneficiaries.

A goal of the Commission's investigation of the evolving market has been to identify developments that would benefit the Medicare and Medicaid programs. Therefore, this chapter describes and analyzes the current status of several approaches to ensure quality and monitor the performance of commercial health plans. It focuses primarily on managed-care plans, especially on health maintenance organizations (HMOs), which have been the site of much of the activity in this area. Characteristics of managed-care plans' internal quality assurance programs, which provide safeguards on quality of care as well as a means for quality improvement, are described in the chapter's first section. Many states have established requirements for health plans' internal quality programs, as discussed in the second section. The third section describes the trend toward accreditation, through which health plans' success in using their quality programs can be assessed. Finally, the status of health plan performance reports, which can provide information on quality and other aspects of care to both purchasers and consumers, is analyzed.

The results from two surveys form the basis for much of the chapter's analysis. Information on the state of managed-care plans' internal quality assurance programs and on these plans' performance report and accreditation activities was obtained through a survey of managed-care plans conducted for the Commission in 1994 by Mathematica Policy Research (MPR) and the Medical College of Virginia (MCV) (Gold et al. 1995).¹ Consistent with this survey's goals of assessing the status of the most successful plans and predicting future trends in managed care, its results represent the experience of the larger, rather than the typical, managed-care plans. A second survey provided the data for the Commission's analysis of state requirements for health plans. In this Commission-sponsored effort, the Intergovernmental Health Policy Project (IHPP) surveyed state health and insurance departments about the extent and substance of regulation pertaining to health plan quality assurance. A total of 42 states responded to the survey; characteristics of quality assurance programs from the remaining states were obtained by examining state laws.

INTERNAL QUALITY ASSURANCE PROGRAMS OF MANAGED-CARE PLANS

Health plans' internal quality programs can be important in ensuring the quality of care provided. Increasingly, these programs also serve as the mechanism through which plans undertake quality improvement. Quality assurance programs and activities are most prevalent among managed-care plans, in which quality of care safeguards were initially prompted by concerns about provider incentives for underservice. As the focus of quality efforts broadens from quality assurance to quality improvement, these programs and activities might ultimately prove to be an advantage in managed-care plans' competition with traditional indemnity plans.

The MPR/MCV survey provides information about the activities that plans undertake to monitor physicians and influence their practice, and also illuminates characteristics of plans' quality assurance

¹ Plans' probability of selection in the MPR/MCV survey was proportional to enrollment size, and market areas included in the sample were selected to enhance the survey's focus on the largest plans. For further explanation of the survey's methods and sample design, see Chapter 10 or the report on the survey results by Gold and her colleagues (1995).

programs. Survey results indicate that most managed-care plans now have the structures and undertake the activities described in industry standards for quality assurance, although preferred provider organizations (PPOs) lag somewhat behind HMOs.² Industry observers have noted that the quality assurance capabilities of managed-care plans have evolved considerably in recent years (O’Kane 1994).

Monitoring Physicians and Influencing Practice

The MPR/MCV survey revealed widespread use by managed-care plans of a variety of activities, including consumer surveys and outcomes studies, that could be used to monitor care or influence physician practice behavior (Table 16-1). These care-management activities could potentially serve quality assurance goals as well as other plan objectives, such as physician selection and retention.³ Each method included in the survey was reportedly used by more than half of the plans. Utilization review was the most widely cited method, while use of practice guidelines and profiling of practice patterns was least common, although still quite common among HMOs. PPOs reported substantially less use of specific care monitoring and influencing techniques than did HMOs, except for utilization review, which was used by nearly all plans.

Table 16-1. Use of Selected Methods to Monitor or Influence Care in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Method	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Utilization Review	95	97	100	96
Recredentialing of Providers	92	97	94	83
Written Quality Assurance Plan	91	97	98	72
Outcome Studies for Particular Conditions	84	93	88	69
Targeted Quality Improvement Initiatives	84	90	96	59
Consumer Surveys	84	97	94	55
Profiles of Practice Patterns	74	76	86	52
Formal Written Practice Guidelines	63	76	76	28
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

² The extent and types of quality assurance activities that PPOs should be expected to undertake is unclear because of their limited ability to manage care. Therefore, while the National Committee on Quality Assurance’s accreditation standards are applicable to both HMOs and PPOs, the organization’s experience suggests that less-structured plans find meeting the standards to be more challenging (O’Kane 1994).

³ See Chapter 10 for discussion of the role that these activities may play in physician selection and retention.

Components of Quality Assurance Programs

The MPR/MCV survey investigated the extent to which managed-care plans have the organizational structures in place to implement effective programs to assess and ensure the quality of care they provide. Survey questions in the areas of the plan's governance of the quality assurance program, provider credentialing, and members' rights were derived from standards used in the accreditation process of the National Committee for Quality Assurance (NCQA) (Gold et al. 1995). Survey responses permit assessing the degree to which plans have instituted the necessary organizational structures and activities that are required to obtain NCQA accreditation. Because responses reflect plans' perceptions rather than an objective review, however, they could potentially overstate managed-care plans' compliance or conformity with NCQA accreditation standards (Gold et al. 1995).

Structure and Activities Governing Quality Assurance Programs. The survey results suggested that there is considerable uniformity in the structures and activities that plans have established to govern their quality assurance programs, particularly among the group- and staff-model HMOs and the independent practice association (IPA) and network HMOs. A substantial majority of surveyed plans reported having the organizational elements to monitor and to implement quality assurance programs, as specified in NCQA accreditation standards (Table 16-2). Accreditation standards require plans to designate a senior executive who is responsible for program implementation and a committee that oversees quality improvement activities. More than 90 percent of surveyed plans reported having designated a senior executive with quality program responsibility, while nearly as many said that a committee oversees their quality program. PPOs were somewhat less likely to report that they have placed responsibility with either an executive or a committee than were plans in either of the HMO categories.

Plans with a quality assurance committee were also fairly uniform in the types of activities undertaken by those committees and the means used to hold the committee accountable for its activities. Of the three categories of plan types, PPOs were least likely to report that their quality committees undertake the activities included in the questionnaire. For example, 57 percent of PPOs that reported having a quality assurance committee said that a governing body reviews an annual report on the quality program. By contrast, 96 percent of the group and staff HMOs and 98 percent of the network and IPA HMOs with quality assurance committees used this technique for ensuring accountability.

Few plans reported contracting with an entity outside the plan to conduct quality-related activities. Of those that do, 14 percent of PPOs reported use of a contractor in this manner, as did 11 percent of group- and staff-model HMOs and 4 percent of network and IPA HMOs.⁴

Credentialing. One aspect of quality assurance consists of verifying credentials, including licensure and board certification, and reviewing relevant aspects of a provider's work history and performance. Most surveyed plans reported having the structure required to meet organizational standards for the governance of plan credentialing activities (Table 16-3).

⁴ Plans were asked not to consider utilization review contracts in answering this question.

Table 16-2. Governance Features of Quality Assurance Programs in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Plan Feature	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Senior Executive Who Has Overall Responsibility for Quality Assurance	92	97	100	72
Committee that Oversees Quality Programs	91	97	98	72
Activities the Quality Committee Undertakes ^a				
Annual planning process	93	93	96	86
Evaluation of quality programs	99	96	100	100
Written annual reports on quality programs	94	100	96	81
Accountability of Quality Committee ^a				
Documentation of approval by governing body	95	100	100	76
Regular reports describing actions or improvements submitted to governing body	93	100	96	75
Governing body reviews annual report on quality program	89	96	98	57
Quality Activities Performed by Outside Agency Under Contract ^b	8	11	4	14
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

^a Only plans that reported having a committee to oversee quality programs responded to indented items that follow.

^b Plans were asked not to report on use of outside contractors for utilization review in responding to this question.

As is the case for plan quality assurance programs, use of both a senior executive and a committee is prescribed by health plan accreditation standards for credentialing. Nearly all the HMOs and PPOs surveyed reported having a senior executive with overall responsibility for credentialing. Slightly fewer plans—83 percent of those surveyed—report having a committee to oversee their credentialing programs. More IPA and network-model HMOs reported using committees (96 percent) than either group- and staff-model HMOs (79 percent) or PPOs (66 percent). Of those that do use a committee, nearly all reported that their committees develop a written credentialing protocol, review and update the protocol, and make credentialing decisions. A third of the surveyed plans stated that they delegate their credentialing decisions to an outside agency or medical group.

Members' Rights and Grievance Procedures. Members' rights and grievance procedures can provide an important guarantee of consumer protection. The Commission has described the need for both of these safeguards in managed-care plans (PPRC 1992; 1994).

Responses to questions about the plans' policies related to members' rights suggest that most HMOs comply with industry standards, while PPOs have fewer safeguards (Table 16-4). Nearly every HMO surveyed reported having a written policy describing members' rights, but only 52 percent of PPOs

Table 16-3. Governance Features of Physician Credentialing in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Plan Feature	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Senior Executive Who Has Overall Responsibility for Credentialing	96	93	100	93
Committee that Oversees Credentialing Programs*	83	79	96	66
Committee develops a written credentialing protocol	91	92	88	100
Committee reviews and updates credentialing protocol	96	96	96	95
Committee makes credentialing decisions	96	92	96	100
Credentialing Decisions Delegated to Outside Agency or Medical Group*	33	48	24	34
Written description of delegated activities	86	79	100	78
Plan can override decisions of outside agency or medical group	86	69	100	90
Plan assesses the effectiveness of the outside group's credentialing activities	86	86	100	70
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

* Only plans that reported having this feature responded to indented items that follow.

reported having one. Of those plans that do have such a policy, PPOs were less likely than HMOs to report that the policy specifically allows members to participate in health care decisionmaking.

As for formal grievance procedures, HMOs and PPOs differed, although not as much as in the policies on members' rights. All the surveyed HMOs reported that they had a formal set of procedures in place to handle grievances, as did 79 percent of PPOs.

STATE QUALITY ASSURANCE REQUIREMENTS FOR MANAGED-CARE PLANS

Federal and state governments have established requirements for quality assurance that pertain to some types of health plans. These provide an external safeguard to quality beyond the efforts of plans. In previous reports the Commission has reviewed and assessed some of the federal requirements and safeguards for quality assurance that have been established pertaining to certain types of health plans.⁵ As part of its exploration of the evolving market, this year the Commission focused its attention on state quality assurance requirements for managed-care plans.

⁵ For example, the Medicare peer review organization program monitors the quality of care provided to beneficiaries, including the care of those beneficiaries enrolled in HMOs. The Health Care Financing Administration's Office of Managed Care administers the quality standards required of HMOs contracting with the Medicare and Medicaid programs. Requirements also exist for those HMOs designated as federally qualified.

Table 16-4. Structures and Activities Governing Members' Rights and Grievances in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Plan Feature	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Written Policy Stipulating Members' Rights*	86	100	98	52
Vehicle or forum for members to voice grievances	100	100	100	100
Policy allowing member to obtain information about the plan and member rights	99	100	98	100
Policy allowing members to participate in health care decisionmaking	96	96	98	87
Formal System for Addressing Grievances*	94	100	100	79
Set of procedures to document and respond to grievances	100	100	100	100
System to ensure grievances are addressed in a timely manner	98	100	100	91
Expedited procedures for emergency grievances	89	90	94	78
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

* Only plans that reported having this feature responded to indented items that follow.

States have established requirements to protect consumers enrolled in some types of health plans by requiring that plans establish internal quality assurance programs, although these requirements vary considerably. States also monitor health plans' internal quality assurance programs to ensure their integrity (IOM 1994).

To provide initial information about the structure and content of state quality assurance programs, the Commission contracted with IHPP to conduct a survey of state health and insurance departments. Responses to the survey came from 42 states. State laws were examined in the remaining states and the District of Columbia to categorize their quality assurance requirements.⁶

While 43 states regulate internal quality assurance programs for HMOs, only a few states regulate other types of managed-care organizations (Table 16-5). Extensive adoption of quality assurance regulations for HMOs may partly reflect concerns about incentives to underserve in these plans. The sparsity of regulation for other types of plans may reflect the rapid, recent expansion in the range of managed-care products. The broad similarity found in the scope of regulations across states may reflect the efforts of the National Association of Insurance Commissioners to develop and circulate a model HMO act.

The general approach taken in regulating health plans' quality assurance programs varies by state (Table 16-6). Eight states characterize their approach to internal quality assurance as identifying

⁶ Arizona, the District of Columbia, Montana, Nebraska, New Mexico, South Dakota, West Virginia, Wisconsin, and Wyoming did not respond to the survey.

Table 16-5. State Regulation of Commercial Health Plan Quality Assurance Programs, by Type of Plan Regulated, 1994

State	HMO	EPO	PPO with Gatekeeper	PPO without Gatekeeper	Other
Alabama	x				
Alaska	x				
Arizona	x	x	x	x	x
Arkansas	x				
California	x				x
Colorado	x				
Connecticut	x				
Delaware	x				x
District of Columbia	No Regulation				
Florida	x	x	x		x
Georgia	x				
Hawaii	No Regulation				
Idaho	x				
Illinois	x				
Indiana	x				
Iowa	x				
Kansas	x				
Kentucky	No Regulation				
Louisiana	x				
Maine	x				
Maryland	x				
Massachusetts	x		x	x	
Michigan	x				x
Minnesota	x				x
Mississippi	x				
Missouri	No Regulation				
Montana	No Regulation				
Nebraska	x				
Nevada	x				
New Hampshire	No Regulation				
New Jersey	x				
New Mexico	x				
New York	x				
North Carolina	x	x	x	x	x
North Dakota	x				
Ohio	x				x
Oklahoma	x				
Oregon	No Regulation				
Pennsylvania	x	x	x	x	
Rhode Island	x				

Table 16-5. State Regulation of Commercial Health Plan Quality Assurance Programs, by Type of Plan Regulated, 1994 (continued)

State	HMO	EPO	PPO with Gatekeeper	PPO without Gatekeeper	Other
South Carolina	x				
South Dakota	x				
Tennessee	x				
Texas	x				
Utah	x				
Vermont	x				
Virginia	x				
Washington	x				x
West Virginia	x				
Wisconsin	No Regulation				
Wyoming	x				

SOURCE: Physician Payment Review Commission's survey of the quality assurance program requirements for commercial health plans in the 50 states and the District of Columbia, conducted by the Intergovernmental Health Policy Project from November 1994 to February 1995.

NOTE: HMO refers to health maintenance organizations, EPO to exclusive provider organizations, and PPO to preferred provider organizations.

individual instances of poor care; 8 states depict their approach as one of continuous quality improvement; and 23 states report using a combination of both approaches.

Variation in approach is also demonstrated by state adoption of requirements that health plans conduct focused studies and studies of patterns of care. Requirements imposed by 23 states for conducting these studies reflect current thinking about the most appropriate approaches to improving quality (Table 16-7). Specifically required by 11 states, focused studies that analyze one clinical or delivery area have distinct advantages over studies in which randomly selected medical files are examined for quality of care issues. Random studies may not identify enough instances of an event to draw scientifically valid conclusions. Further, random studies may fail to uncover quality issues in areas of greatest concern. By contrast, focused studies can target important topics and, if necessary, provide a basis for remediation.

States require health plans to monitor different aspects of care. Nearly all states that regulate quality require plans to examine physicians' credentials, and most of those also require plans to examine credentials of nonphysician providers. In addition, states typically require plans to monitor grievances, access to care, process of care, and outcomes of care.

Effective state oversight of internal quality programs is necessary to ensure appropriate compliance. All the states that regulate quality programs, except for Colorado, report that they monitor them in some fashion. Most of the states review health plans' written submissions; in a few states, including Connecticut and Delaware, this is the only method of monitoring used (Table 16-8). Fewer than half

Table 16-6. State Approaches to Regulating Commercial Health Plan Quality Assurance Programs, 1994

State	Focus on Instances of Poor Quality	Continuous Quality Improvement	Both
Alabama			x
Arkansas			x
California		x	
Colorado			x
Connecticut		x	
Delaware	x		
Florida	x		
Georgia		x	
Idaho	x		
Illinois			x
Indiana			x
Iowa		x	
Kansas		x	
Louisiana	x		
Maryland			x
Massachusetts	x		
Michigan	x		
Minnesota			x
Mississippi			x
Nebraska			x
Nevada			x
New Jersey			x
New Mexico			x
New York			x
North Carolina			x
North Dakota			x
Ohio			x
Oklahoma			x
Pennsylvania			x
Rhode Island		x	
South Carolina			x
Tennessee			x
Texas			x
Utah	x		
Vermont		x	
Virginia			x
Washington		x	
West Virginia			x
Wyoming	x		

SOURCE: Physician Payment Review Commission's survey of the quality assurance program requirements for commercial health plans in the 50 states and the District of Columbia, conducted by the Intergovernmental Health Policy Project from November 1994 to February 1995.

NOTE: Alaska, Arizona, Maine, and South Dakota did not respond. The District of Columbia, Hawaii, Kentucky, Missouri, Montana, New Hampshire, Oregon, and Wisconsin do not regulate the quality assurance programs of health plans.

Table 16-7. State Requirements for Studies Conducted by Commercial Health Plans, 1994

State	Focused Review	Patterns of Care	State	Focused Review	Patterns of Care
Alabama			Nebraska		x
Arizona			Nevada		x
Arkansas			New Jersey		x
California		x	New Mexico	x	x
Colorado			New York	x	x
Connecticut			North Carolina	x	x
Delaware			North Dakota	x	
Florida	x	x	Ohio		
Georgia			Oklahoma	x	x
Idaho			Pennsylvania	x	x
Illinois		x	Rhode Island		x
Indiana		x	South Carolina		x
Iowa			South Dakota		
Kansas			Tennessee	x	n/a
Louisiana		x	Texas	x	x
Maine		x	Utah		
Maryland			Vermont		
Massachusetts		x	Virginia		
Michigan	x	x	Washington		x
Minnesota	x	x	West Virginia		
Mississippi			Wyoming		x

SOURCE: Physician Payment Review Commission's survey of the quality assurance program requirements for commercial health plans in the 50 states and the District of Columbia, conducted by the Intergovernmental Health Policy Project from November 1994 to February 1995.

NOTE: Alaska did not respond. The District of Columbia, Hawaii, Kentucky, Missouri, Montana, New Hampshire, Oregon, and Wisconsin do not regulate the quality assurance programs of health plans.

of the states that regulate quality require on-site inspections of plans. About one-third audit medical records. Fewer than one-third review plans' accreditation status.

HEALTH PLAN ACCREDITATION

One likely reason for the apparent standardization in internal quality assurance programs of HMOs is the trend in plans' efforts to obtain accreditation. Accreditation serves as an external assessment of the structure and effects of health plans' internal quality assurance programs. While accreditation programs for health plans are newer than programs for institutional providers, this approach is attracting interest among entities seeking to hold plans accountable for performance. At least five states currently require evaluation by a quality review organization as a component of their licensure and regulatory processes, and at least two states have set deadlines by which plans serving state employees must receive accreditation (O'Kane 1994). A number of large purchasers now request or require accreditation reviews for the plans with which they contract.

Table 16-8. State Monitoring of Health Plan Compliance With Quality Assurance Requirements

State	On-Site Review	Review of Written Submissions	Audit of Medical Records	Review of Data Submissions	Accreditation Status
Alabama	x	x		x	
Arkansas	x	x	x		x
California	x	x	x	x	x
Colorado					
Connecticut		x			
Delaware		x			
Florida	x	x	x		x
Georgia		x			
Idaho		x			
Illinois	x	x	x		
Indiana		x			
Louisiana		x			
Maine					
Maryland	x	x			
Massachusetts	x	x		x	
Michigan	x	x	x	x	x
Minnesota	x	x	x	x	x
Mississippi		x			
Nebraska		x	x		
Nevada	x	x			
New Jersey	x	x	x	x	x
New York	x	x	x	x	
North Carolina	x	x	x	x	x
North Dakota		x		x	
Ohio	x	x	x	x	
Oklahoma	x	x	x	x	x
Pennsylvania	x	x	x	x	
Rhode Island	x	x	x	x	x
South Carolina	x	x	x	x	x
Tennessee	x	x		x	
Texas	x	x		x	x
Utah					
Vermont	x	x	x		
Virginia		x		x	
Washington	x	x		x	x
West Virginia		x		x	

SOURCE: Physician Payment Review Commission's survey of the quality assurance program requirements for commercial health plans in the 50 states and the District of Columbia, conducted by the Intergovernmental Health Policy Project from November 1994 to February 1995.

NOTE: Alaska, Arizona, New Mexico, South Dakota, and Wyoming did not respond. Iowa and Kansas use external review organizations to monitor plans. The District of Columbia, Hawaii, Kentucky, Missouri, Montana, New Hampshire, Oregon, and Wisconsin do not regulate the quality assurance programs of health plans.

The MPR/MCV survey of managed-care plans provides information about plans' accreditation status (Table 16-9). Several organizations now offer accreditation programs for managed-care plans. The typical accreditation sought varies by type of plan. Accreditation by the Utilization Review Accreditation Commission (URAC) is the most prevalent among PPOs, with 45 percent of these plans reporting that they have obtained URAC accreditation and 3 percent reporting that they are in the process of obtaining it. The most prevalent accreditation among HMOs is from NCQA, with more than a third of both group- and staff-model HMOs and network and IPA HMOs reporting this accreditation. More than 50 percent of HMOs report being in the process of obtaining NCQA accreditation. These high percentages may partly reflect the survey's sampling of larger plans and the fact that surveyed plans were not asked to reveal the level of accreditation (full, one-year, or provisional) obtained.

NCQA has reported performing accreditation reviews for more than a third of the HMOs in the industry, about one-third of which have been awarded full accreditation status (O'Kane 1994).⁷ Although the MPR/MCV survey shows that most plans have the structure in place to implement effective quality assurance programs, many have not been fully accredited because they have yet to demonstrate quality improvement.

HEALTH PLAN PERFORMANCE REPORTS

The Commission views performance reports as an important component of a multifaceted approach to quality assurance because such reports could potentially provide accountability directly to those to whom health plan performance matters most. To facilitate competition on the basis of value, information about health plans or providers must be made available to those selecting among them. By consolidating and displaying such information in a usable format, performance reports could serve as a resource to assist purchasers in making contracting decisions and consumers in making their health care decisions.

This section describes efforts to produce performance reports and evaluates the status of those reports. Although there have been substantial gains in the development and testing of indicators and in the preparation and presentation of reports, considerable work remains to be done in this area. The Commission is concerned that data from most performance reports are self-reported and are not audited by an independent organization. While early efforts have been valuable in testing the feasibility of performance reporting, auditing will be necessary if performance reports are to be relied upon to inform purchasers' and consumers' decisionmaking.

The Health Plan Employer Data and Information Set

The state of the art in health plan performance measurement is represented by the Health Plan Employer Data and Information Set (HEDIS), an instrument designed to assist in evaluating the

⁷ Approximately another third of reviewed plans were awarded one-year accreditation, and about 13 percent have been denied accreditation. The rest have received provisional accreditation (O'Kane 1994).

Table 16-9. Extent and Type of Managed-Care Plan Accreditation, by Plan Type, 1994
(percentage of responding plans)

Type of Accreditation	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
National Committee for Quality Assurance				
Obtained	30	38	39	7
In process of obtaining	46	52	57	21
American Accreditation Program, Inc.				
Obtained	2	0	2	3
In process of obtaining	1	4	0	0
Joint Commission for Accreditation of Healthcare Organizations*				
Obtained	6	14	4	0
In process of obtaining	0	0	0	0
Utilization Review Accreditation Commission				
Obtained	21	3	18	45
In process of obtaining	3	0	4	3
Accreditation Association for Ambulatory Health Care				
Obtained	4	14	0	0
In process of obtaining	1	0	2	0
Plans Responding (number)	107	29	49	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et. al 1995).

* Excludes individual hospitals and other facilities.

NOTE: Up to three plans failed to respond to a specific item.

performance of managed-care plans. Most of the recent efforts to use performance measures for quality improvement, evaluation, or comparison have incorporated aspects of HEDIS.

HEDIS as a Basis for Performance Measurement. Sponsored by NCQA, HEDIS was originally conceived as a tool for purchasers to use in their efforts to hold plans accountable for quality, with the expectation that managed-care plans would also be able to incorporate the performance measures into their quality improvement programs. Representatives of health plans and employers were involved in the development process, which built on the work of earlier efforts to devise uniform measurement and data reporting standards.

Because the health plan performance measurement field is both in its infancy and in a rapid state of development, HEDIS is intended to be a continuously evolving instrument. The initial version of HEDIS was first released in draft format in September 1991, following nearly two years of development. The second version, HEDIS 2.0, was released in November 1993; HEDIS

2.5, which was available in January 1995, improved the specifications for undertaking measurement using the performance measures provided in HEDIS 2.0 (NCQA 1993; 1995). The next version, which will probably be available in early 1996, is expected to expand on earlier versions by including performance measures to evaluate managed-care plan performance in serving Medicaid enrollees.

HEDIS consists of a set of 63 performance measures, a description of data requirements and measurement techniques, and a series of questions designed to elicit descriptive information on a range of health plan characteristics (Tables 16-10 and 16-11). The measures are to be used to assess performance in four categories: quality, access and satisfaction, membership and utilization, and finance. Measures were selected according to their relevance and value to the employer community and their potential impact on improving the process of care delivery. Whether health plans could reasonably be expected to develop and provide the requested data in the manner specified was also considered in defining the measures.

Few health plans are now able to generate the data needed to evaluate their performance using all the measures. There is extensive variability among plans in terms of data systems and capabilities. Those plans that lack hospital and encounter databases may follow a set of specifications based on the results of a focused medical record audit.

To permit fair comparisons among plans, plan data sets must be of similar quality in terms of completeness and accuracy. Additionally, a fair methodology to adjust for differences in patient mix must be used. Where plans self-report their data, auditing will be required to ensure validity. Where auditing does not occur, performance reports may be of limited value in serving as a basis for informed selection.

Use of HEDIS in Performance Reports. The development of performance measures is the first step in providing information to consumers, purchasers, and other interested parties. The second step is implementation, which includes measuring quality and satisfaction, auditing the data, and producing the performance reports.

To transform HEDIS into a tool that could be used to compare plans, NCQA developed a performance report pilot project that involved 21 managed-care plans (NCQA 1995). A subset of the HEDIS measures was selected for use in the project. The major purpose of the pilot was to test the feasibility of implementing a system of performance reporting.⁸

In the first step of the pilot project, 28 measures were chosen from HEDIS on the basis of the usefulness of the measures, ability of plans to collect the data, and the appropriateness of measures for comparative purposes. These measures included some on quality, access, physician networks, utilization, membership, and finance. While most measures were not changed from HEDIS, the prescribed methods for calculating some of them were modified to improve validity.⁹

⁸ Records of Medicare and Medicaid beneficiaries were excluded from this pilot test.

⁹ For example, the denominator for asthma hospitalization rates was improved by substituting a count of those who were diagnosed with asthma for total membership.

Table 16-10. Health Plan Performance Measures Included in the Health Plan Employer Data and Information Set, Version 2.0

Measurement Goal	Category	Measure
Quality	Preventive medicine	Childhood immunization Cholesterol screening Mammography screening Pap smears for cervical cancer
	Prenatal care	Low birthweight Prenatal care in first trimester
	Acute and chronic disease	Asthma admissions/readmissions Diabetic eye exam Treatment following myocardial infarction
	Mental health and substance abuse	Readmission rate for treatment of major affective disorders Substance abuse readmission rate
Access and Patient Satisfaction	Access	Percent of members age 42 to 64 with plan visit in previous two years Number and percent of primary care physicians accepting new patients Provision of plan access standards for various types of visits and telephone response
	Member satisfaction	Percent of members who are "very satisfied" with plan Provision of satisfaction surveys
Membership and Utilization	Membership	Enrollment/disenrollment
	High occurrence/high cost	Frequency and average cost of five selected procedures
	Global inpatient care	Medicine/surgery, maternity and newborns
	Ambulatory care	Outpatient visits, emergency room visits, and ambulatory surgery
	Non-acute care	Stays in nursing homes, rehabilitation facilities, hospice, transitional and respite facilities
	Maternity care	Total deliveries with subdivision of vaginal births, cesarean sections, and vaginal births after cesarean section
	Newborns	Well and complex newborn, differentiated by length of stay
	Mental health	Treatment on basis of inpatient, day/night, and outpatient location
	Chemical dependency	Treatment on basis of inpatient, day/night, and outpatient location

Table 16-10. Health Plan Performance Measures Included in the Health Plan Employer Data and Information Set, Version 2.0 (continued)

Measurement Goal	Category	Measure
Finance	Performance	Total revenue
		Net income
		Net worth
		Debt to service coverage
		Overall loss ratio
		-administrative loss ratio
		-medical loss ratio
		Operating profit margin
	Liquidity	Days cash on hand
		Ratio of cash to claims payable
	Efficiency	Days in receivables
		Days in unpaid claims
	Compliance with statutory requirements	Admitted reserves
		State minimum reserve requirements

SOURCE: National Committee for Quality Assurance 1993.

Project task force members debated whether these measures should be risk adjusted before publication. Some utilization measures were adjusted for age and sex differences. Quality measures, however, were not adjusted because the tools needed to do so were judged to be too crude.

In the second step of the project more detailed specifications were developed for using medical records, administrative data sets, or a combination of these data sources as a basis for performance measurement. In contrast to previous versions of HEDIS, plans were allowed to use both administrative and medical records for measurement. For example, when an event for a specific patient was not recorded in the administrative data set, the medical record was examined.

A third step was a survey of plan enrollees. Measures of enrollee satisfaction were selected from the Group Health Association of America's consumer satisfaction survey. An independent survey firm conducted a survey of 10,732 enrollees (about 400 in each plan).¹⁰ One difficulty encountered in drawing a sample was that some plans did not have a complete list of members.

The fourth step was an external audit, including a review of written documentation on the process that was used to create measures, a site visit, verification of computer programs, and validation of measures by collecting data from a sample of records and administrative data sets. An outside vendor conducted the audits.

¹⁰ While the entire Group Health Association of America's consumer satisfaction survey instrument was used, responses to only eight questions are presented in the performance reports.

Table 16-11. Descriptive Information to be Collected from Health Plans as Prescribed by the Health Plan Employer Data and Information Set, Version 2.0

I. Provider network

- Board certification rates
- Turnover rates for network physicians
- Items verified through recredentialing process
- Physician compensation arrangements
- Other information on plan's provider policies or procedures, as deemed relevant by the plan

II. Clinical management

- Quality assessment and improvement program
 - Preventive care and health promotion program
 - Case management approach
 - Utilization management policies and procedures
 - Risk management activities
-

SOURCE: National Committee for Quality Assurance 1993.

Finally, the performance reports for each of the 21 health plans were shown in NCQA's technical report. Since these performance reports have not been evaluated using focus groups, it is difficult to judge at this time whether they will be useful to consumers.

Although NCQA's pilot project did not take into account consumers' needs, it did demonstrate that standardized, audited performance reports could be developed for many health plans. It provided insights into steps that need to be taken to advance the development of performance reports. For example, there is a need for access measures and measures on additional clinical areas, such as those for chronic care, mental health, and substance abuse. The project also demonstrated the need for additional research on risk adjustment methodologies for performance reports. Further, it showed that health plans will require more sophisticated information systems, especially those for the collection of clinical information (NCQA 1995).

Developing Performance Reports

This section describes first the development of performance reports by health plans and then the development by others, such as governments, employers, and business alliances. These two groups are discussed separately because of differences both in their motives for using performance reports and in the products of their efforts to date.

Health Plans. This section first reports on plans' work in collecting data and calculating performance measures and their development of performance reports as indicated by the MPR/MCV survey of managed-care plans. Performance reports of leading managed-care plans are then described, considering the types of measures, types of adjusters, auditing, and performance results reported.

Use by Surveyed Managed-Care Plans. The MPR/MCV survey revealed that the majority of plans surveyed have taken at least initial steps toward performance measurement, with a substantial percentage having ventured beyond those initial steps.

The first step in the development of performance reports by health plans is the selection of measures. In general, plans will select measures that other organizations have already developed; therefore, surveyed plans were asked about their experience with HEDIS 2.0. Fully 84 percent of surveyed plans reported having reviewed HEDIS 2.0 to collect data and calculate measures or to assess their ability to do so. While more than 90 percent of HMOs said they have done this, only 59 percent of PPOs reported doing so (Table 16-12).

Table 16-12. Use of Indicators from the Health Plan Employer Data and Information Set in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Plan Activity	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Review of HEDIS to Generate Indicators or Assess Ability to Do So	84	97	92	59
Generation of Any HEDIS Indicators	61	72	78	21
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: HEDIS refers to the Health Plan Employer Data and Information Set, a health plan performance monitoring system issued by the National Committee for Quality Assurance.

Many plans reported also having measured their performance according to at least one of the measures HEDIS prescribes, although more HMOs than PPOs report having done this. Some 61 percent of surveyed plans reported having assessed their performance using a HEDIS indicator, including about three-quarters of HMOs and about one-fifth of PPOs (Table 16-12).

Of those plans that have examined HEDIS indicators, there is considerable variation in specific indicators used in measuring performance (Table 16-13). About two-thirds of the plans that had reviewed HEDIS report having used the childhood immunization measure and a similar proportion report having used the mammography screening measure. Only about

Table 16-13. Use of Specific Indicators from the Health Plan Employer Data and Information Set in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Indicator	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Childhood Immunizations				
Already generated	65	71	76	24
To be generated by end of 1994	19	25	15	18
Planned to be generated by end of 1995	13	4	9	36
None of above	4	0	0	24
Cholesterol Screening				
Already generated	47	61	52	12
To be generated by end of 1994	24	21	28	18
Planned to be generated by end of 1995	19	11	20	29
None of above	10	7	0	41
Mammography Screening				
Already generated	63	68	74	24
To be generated by end of 1994	22	25	20	24
Planned to be generated by end of 1995	11	7	7	29
None of above	4	0	0	23
Pap Smears				
Already generated	57	68	61	29
To be generated by end of 1994	20	18	24	12
Planned to be generated by end of 1995	18	14	13	35
None of above	5	0	2	23
Low Birth Weight				
Already generated	53	57	61	24
To be generated by end of 1994	23	25	26	12
Planned to be generated by end of 1995	14	11	7	41
None of above	14	7	7	24
Prenatal Care in First Trimester				
Already generated	51	61	57	18
To be generated by end of 1994	25	21	26	29
Planned to be generated by end of 1995	16	11	15	29
None of above	8	7	2	24
Asthma Inpatient Admission Rate				
Already generated	55	68	65	6
To be generated by end of 1994	23	18	26	24
Planned to be generated by end of 1995	14	14	7	35
None of above	8	0	2	35
Diabetes Retinal Exam				
Already generated	40	54	46	0
To be generated by end of 1994	26	25	30	18
Planned to be generated by end of 1995	21	14	17	41
None of above	13	7	7	91
Ambulatory Follow-up After Hospitalization for Major Affective Disorders				
Already generated	38	50	46	0
To be generated by end of 1994	25	29	26	18
Planned to be generated by end of 1995	15	7	13	35
None of above	21	14	15	47
Plans Responding (number)	91	28	46	17

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: Only those plans that have examined the Health Plan Employer Data and Information Set to generate indicators or assess their ability to do so responded to these questions on use of specific indicators.

40 percent are producing measures on retinal examination for diabetics and slightly fewer report using a measure of ambulatory followup care after hospitalization for affective disorders.

Among types of plans, there is also variation in the use of HEDIS measures. HMOs are significantly more likely to report use of HEDIS measures than are PPOs (Table 16-13). Of nine HEDIS measures, group- and staff-model HMOs are more likely to collect data on six of the measures compared with network and IPA model HMOs.

Of those plans that report using HEDIS measures, more than 80 percent said they are doing so in response to purchaser requests and for performance report distribution (Table 16-14). All types of plans say they use HEDIS indicators slightly more often in response to purchaser requests than to develop performance reports. PPOs are considerably less likely to use indicators for either reason.

Examples of Performance Reports Issued by Plans. Although the typical health plan has not distributed performance reports for public use, some plans have done so. Many of these early

Table 16-14. Use of Indicators for Different Purposes in Managed-Care Plans, by Plan Type, 1994 (percentage of responding plans)

Use of Indicators	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
To Respond to Purchaser Requests				
A lot	59	62	59	50
Moderately	30	33	31	17
Not at all	11	5	10	33
To Develop a Report Card for External Distribution				
A lot	52	52	57	17
Moderately	33	38	28	50
Not at all	15	10	15	33
To Identify Internal Needs for Improvement				
A lot	82	95	74	83
Moderately	15	5	21	17
Not at all	3	0	5	0
Plans Responding (number)	66	21	39	6

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: Only those plans that have generated an indicator of plan performance that is described in the Health Plan Employer Data and Information Set responded to these questions on how indicators are used by the plan.

efforts have been developed in response to actual or perceived demand from employers or other purchasers. Their use illustrates the future direction for Medicare, Medicaid, and other commercial plans.

United HealthCare Corporation (UHC), an organization that manages 20 health plans, was among the first to produce a performance report. UHC released its first reports on the cost and quality performance of 14 of the health plans it owns or manages in September 1993. The UHC reports provided ratings on 28 measures of quality, consumer satisfaction, administrative efficiency, and cost control. Indicators used in the report are similar to those used in HEDIS. Measures reported were not audited to ensure validity and were not adjusted to reflect characteristics of the population that might affect measurement results.

In October 1993, Kaiser Permanente's Northern California Region released its first performance report. The plan's report included 102 performance measures in the areas of member satisfaction, childhood health, maternal care, common surgical procedures, mental health, substance abuse, and treatment of a number of diseases and chronic conditions. In developing its performance report, the plan drew on work done by RAND, the U.S. Public Health Service's *Healthy People 2000* report, and HEDIS. Measures were adjusted for age and sex, but measures reported were not audited to ensure validity.

In November 1993, U.S. Healthcare released the first performance reports that used both the measures found in HEDIS 2.0 and the measurement specifications that HEDIS 2.0 prescribes. U.S. Healthcare's reports include measures of access to care, member satisfaction, and quality of care.¹¹ Information on the measures specified by HEDIS 2.0 was published for the company overall, as well as for each individual plan. In August 1994, U.S. Healthcare released a second set of performance reports having measurement results for 1993. Measures reported were not audited to ensure validity and were not adjusted to reflect characteristics of the population that might affect measurement results.

For the most part, these early performance reports by health plans were designed as prototypes, and were developed for promotional and investigational purposes. Such reports cannot, by and large, be used to compare competing plans. Some performance reports have included benchmarks for comparison, such as statewide averages, where such information is available. But many plans have noted that such comparisons are unreliable, as different data and methodologies are used to develop the measures.

Furthermore, performance reports produced by plans have been oriented primarily toward employers and other purchasers, rather than consumers. There are two likely reasons for this. First, less work has been done in the area of developing measures for consumers. HEDIS 2.0, on which many of the early efforts have been based, was designed to provide information for purchasers to use in health plan assessment. Consequently, many of the measures used may not be the ones that would be most meaningful to a consumer faced with a choice among health plans. Second, demand for performance

¹¹ Financial stability information was made available by request only.

reports has come primarily from purchasers, which have increasingly become more organized and direct in demanding accountability from health plans for their health care expenditures. This, however, is changing as purchasers recognize the need to provide information to consumers.

Other Organizations. Beyond health plans, other organizations that have an interest in providing information for comparisons of health plans or providers have developed performance reports. Some employers, including those in the public and private sectors, and coalitions of organizations have developed such reports. A few state government agencies have also done so as a public service. While the number of organizations planning to use performance reports appears to be growing, there are only a few examples of organizations that have published them. These organizations use different types of data.

Performance Reports Using Survey Data. Unlike health plans' initial efforts, performance reports generated by other organizations are designed to provide information that consumers can use to compare competing plans and providers. Because consumer satisfaction surveys are one source of comparable data that is available or can be easily generated, many performance reports have used them. Health plans and providers, by contrast, do not now have comparable data collection systems or comparable data. In addition, survey data may be easier and less expensive to collect compared with health outcomes and other types of data.

The use of survey data can be illustrated by describing the efforts of a few employers in developing performance reports. For example, in November 1994 the Federal Employees Health Benefits Program (FEHBP) released the results of a survey of federal employees' opinions about various aspects of the health plans in which they participate. Respondents were asked to rate access; quality of care; coverage of services; availability of physicians; and administrative performance (e.g., customer service, simplicity of paperwork). Information on consumer satisfaction with the plans available through FEHBP was provided in a report that was made available to federal employees.¹² The report shows significant differences in employee satisfaction with the plans (Office of Personnel Management 1994).¹³

Minnesota has developed a performance report on health plans for state employees that also includes only survey measures. About 200 employees in each of six health plans rated overall satisfaction with care, customer service, quality of care (including both technical and communication aspects), and access to care. The results, which were not adjusted for differences in plan enrollment, depicted some differences among plans. For example, the percentage of plan members assessing overall satisfaction with care as "excellent" ranged from a low of 18 percent to a high of 39 percent (State of Minnesota 1993).

¹² Only 56 percent of plans available through FEHBP appear in the report. The remaining plans were not included for various reasons. Of the plans not included, 14 percent of the plans refused to participate, 1 percent had too few respondents, 16 percent were new to the FEHBP, and 12 percent were not asked to participate because they had too few federal employees as enrollees.

¹³ Of the plans that provided information, 21 percent received significantly lower consumer satisfaction scores than the average for plans of the same category (i.e., fee-for-service, managed care), while 38 percent obtained scores that were statistically higher than the average. The other plans showed variations that, using commonly accepted statistical techniques, could not be confidently distinguished from the average score.

Performance Reports Using Other Data Sources. Notable exceptions to the use of survey data are the few state governments and local voluntary coalitions that have released reports on hospital performance for selected services. For example, New York and Pennsylvania have each developed reports with risk-adjusted mortality rates for coronary artery bypass graft (CABG) surgery for each hospital and surgeon in their respective states (New York State Department of Health 1993; Pennsylvania Health Care Cost Containment Council 1991).

Only a few performance reports combine survey results with other data on health plans. For example, in its latest health plan enrollment period, Xerox provided its employees with an HMO performance report. Unlike the previously mentioned reports, Xerox's consists of a variety of measures, including descriptive plan information, survey data on satisfaction and experience with each plan, rates of preventive care, premium changes over three years, and percent of total premium used to cover medical and hospital expenses. Performance results for each plan are displayed side by side, along with goals for each indicator that were established by the company. Data presented in Xerox's report are not adjusted for severity of illness or other characteristics that might be expected to alter the results, nor are they audited to determine validity.

Another example is provided by the Cleveland Health Quality Choice program, a coalition of businesses, physicians, and hospitals that developed a report on quality and patient satisfaction with hospitals (Cleveland Health Quality Choice 1994). Patient satisfaction was measured by 75 questions asked of at least 300 randomly selected patients in each hospital, although the report only indicates overall satisfaction.¹⁴ Outcomes (mortality and length of stay) were measured for selected general medical, surgical, and intensive care diagnoses. Severity adjustments were made to all measures.

A third example is *Health Pages*, a city-specific report developed to provide consumers with information about local providers and health plans in a usable format, represents an early effort to address consumers' information needs. *Health Pages* mixes articles of general interest on health-related topics and specific medical conditions with information about physicians, hospitals, and health plans. Most data are descriptive (e.g., charges, services provided), but some process and outcomes measures are also given, where available (e.g., cesarean-section rates, tonsillectomy rates). Plan- and provider-specific data provided in *Health Pages* are self-reported, and have neither been adjusted for relevant characteristics of the underlying population nor audited to ascertain validity.

Developing Performance Reports for Medicaid and Medicare

The Medicaid and Medicare programs are building on the foundation established by HEDIS. This approach is consistent with the Commission's position that quality assurance efforts of public programs should be coordinated with those of the private sector in order to avoid wasteful duplication of development and monitoring efforts (PPRC 1993). Private-sector efforts will in turn build from experiences with the public sector; for instance, information generated in the project to adapt HEDIS performance measures for Medicaid will be incorporated into the next version of HEDIS.

¹⁴ Global satisfaction is measured as a composite of three questions asking whether the patient would return to the hospital, brag about the hospital, or recommend it to family and friends.

The Health Care Financing Administration (HCFA) is participating in projects to adapt and improve HEDIS performance measures so that they can be used to assess the performance of managed-care plans in meeting the needs of the Medicare and Medicaid populations. These measures may be used by states to monitor and improve the performance of the managed-care plans serving Medicaid beneficiaries, and by the peer review organizations (PROs) to monitor and improve the quality of care in plans serving Medicare beneficiaries.

Medicaid. NCQA, HCFA, and the Association of State Medicaid Directors are working to adapt the measures of HEDIS 2.0 for use in Medicaid managed care, with a focus on maternal and child health. NCQA is responsible for staffing this project, which utilizes an advisory group consisting of representatives of Medicaid programs, managed-care plans, and consumers, in addition to HCFA staff.

The project will proceed in two phases. The first has three goals: (1) identification of Medicaid data needed to monitor plan performance, (2) specification of data to be collected, and (3) coordination of Medicaid efforts with those of other purchasers. A draft report on these issues will be circulated in the spring of 1995. After the draft is completed, the group will focus on issues of the appropriate dissemination of performance measures and their potential use by state Medicaid programs, beneficiaries, and plans.

HCFA's intention is to provide NCQA's report as technical assistance to the states, which could determine whether to adopt or adapt it for use in their Medicaid programs. This approach is intended to increase standardization without stifling innovation.

Medicare. Medicare is also pursuing the development of performance reports based on HEDIS that could be used by PROs in their quality monitoring and improvement efforts. HCFA contracted with one PRO, which subcontracted with researchers from other organizations and two other PROs. The first phase of this contract involved the adaptation of HEDIS measures for the Medicare population. The second phase entails a pilot test of the use of these adapted HEDIS measures with the Medicare population.

Measurement Selection. In the first phase the researchers selected a set of performance measures, determined the minimum data set needed to undertake measurement, and developed a strategy for PROs to use in reviewing those organizations with Medicare risk contracts. This effort is part of an ongoing program to change the role of PROs in relation to those organizations with Medicare risk contracts from one of merely identifying problems to encouraging total quality improvement.

The core measures for the performance reports are partially adapted from HEDIS. For the pilot test, the project team recommended collecting data on primary care and preventive services, and diagnosis-specific measures. For monitoring primary care and preventive services, the project team suggested that measures of access to services, mammography screening, and influenza immunization be included in the pilot test.¹⁵ Diagnostic measures for two diseases, diabetes mellitus and ischemic heart

¹⁵ The influenza measures were developed by the project to Develop and Evaluate Measures to Promote Ambulatory Care Quality, which was previously funded by HCFA (Palmer et al. 1994).

disease, were chosen because of their common occurrence and their serious impact on Medicare beneficiaries.

The project team also recommended surveys of Medicare plan members for use in performance reports, although these will not be part of the pilot test because of the delay that would result from the need to obtain clearance from the Office of Management and Budget. Nevertheless, the project team identified specific survey items from a number of well-known consumer surveys for possible later use.

Pilot Test. The second phase of the contract will culminate in a pilot test with both fee-for-service and managed-care components. This phase began with a review of the measures developed under the first contract by a panel of clinicians to determine how meaningful these are to physicians. The second step is the development of a manual for use by PROs and other organizations that will describe how to develop these measures, which should be completed by this spring. The actual pilot test is the third and final step of this phase, expected to be completed by early 1996. The PROs for Alabama, Iowa, and Maryland will recruit volunteer physicians to test the use of performance reports in fee-for-service Medicare, including use of profiles and educational feedback to improve physicians' performance. The pilot test for managed-care plans will involve volunteer PROs and Medicare risk plans operating within their jurisdiction. The pilot test will examine whether the collection and audit of the data are feasible.

Status of Performance Reports

In its 1994 annual report, the Commission indicated several concerns about the development of performance reports (PPRC 1994). First, there was very little information on consumers' needs, interests, and ability to use performance reports. Second, although the development of meaningful quality measures had made some progress, it was still in its infancy. Third, quality measures needed to be adjusted for differences in the populations served by the plan or provider. Fourth, the Commission saw the need to standardize measures and measurement methodologies to ensure comparability of performance reports. Finally, the Commission thought there was the need for an external organization to audit the data presented by plans to confirm their validity.

Performance reporting is a field in which it is widely recognized that much remains to be done. Notable progress is being made, particularly in understanding consumers' needs for information presented in performance reports. There are, however, gaps in the development of performance measures and inconsistencies in the use of performance reports. Few of the currently available performance reports present information about many dimensions of care for a range of services. There is little use of risk adjusters to account for differences in patient characteristics across providers or plans. There are only a few efforts to produce comparable, audited reports on multiple plans or providers.

Consumers' Needs. Last year, the Commission noted that little was known about what aspects of quality consumers would find most relevant and important in making choices about health plans. Recognizing the limited state of the art in this area, several organizations have initiated consumer-focused research projects to investigate what information consumers want and need in order to select among competing health plans, and what is the most helpful way to present that information.

Recent research has provided some insight into these questions. From focus groups, NCQA found that consumers become interested in performance reports once they are introduced to the concept. Consumers want information on cost, how plans work, physician choice, satisfaction with care, and unbiased judgments about quality. But consumers in different areas of the country appeared to prefer different types of information (O'Kane 1994). The Agency for Health Care Policy and Research (AHCPR) determined from focus groups that consumers want information on convenience, choice, and accessibility in brief, easily understood formats. A national survey conducted by the Harvard Community Health Plan found that among five categories of information, consumers placed the lowest priority on quality measurements when choosing a health plan. They preferred information on participating providers, what care is covered, and how satisfied other members are with their care (Taylor 1994). NCQA found that providing performance reports expanded consumers' desire for more information about quality of care and outcomes, however (O'Kane 1994).

Additionally, some organizations are obtaining feedback from employees about the usefulness of their performance reports. For example, Xerox asked its employees four questions: whether the performance report was helpful, what aspects of it were helpful, whether the employee wanted additional information, and what additional information the employee wanted. Xerox plans to redesign its report based on employee feedback and will conduct a focus group to test whether the revised report is understandable and useful (Darling 1994).

Measures of Performance. Most performance reports do not present a series of measures that capture multiple dimensions of care or a range of services. For example, several of the hospital reports contained only a measure of one service.

Types of Measures. Performance reports, including those based on HEDIS, typically present process measures. Previously, the Commission noted the need for measures on structure of the care delivery organization, the process used in providing care, and the outcomes of that care (PPRC 1994). While each of these types of measures is important for understanding quality of care, performance reports currently emphasize process measures. Especially notable is the dearth of outcomes measures.

Measures That Span Many Dimensions of Care. Few of the performance reports include measures that provide information on multiple dimensions of care, including clinical measures of quality, patient satisfaction with care, and accessibility of care. The reports developed by state agencies in New York and Pennsylvania measure only mortality rates for one service, CABG surgery. Those that rely on consumer surveys do not capture technical or clinical aspects of care. The report on hospitals prepared by Cleveland's Health Quality Choice program is broader. It presents data on consumer satisfaction, mortality, and length of stay, but it provides information on only inpatient services.

More comprehensive are Xerox's report on health plans and certain plans' reports on themselves. These organizations tend to use some of the HEDIS measures. Xerox's report includes two measures of satisfaction, eight technical or clinical measures, nine measures of accessibility, and nine measures of plan structure and stability. UHC presents consumer survey data on four aspects of care, eight technical or clinical indicators, and eight measures of administrative features. U.S. Healthcare used performance measures that assessed characteristics of membership and utilization, quality of services,

and patient access and satisfaction. Kaiser included the largest number of measures in its report, focusing on member satisfaction, clinical performance, and outcomes.

Measures That Span a Range of Medical Care Services. Generally, performance reports do not encompass the entire range of medical care a plan provides. The reports distributed by the Cleveland coalition, New York, and Pennsylvania are the most limited in their purposes and do not even span the range of inpatient services.

Reports distributed by plans and employers are broader in that they cover ambulatory conditions, although they have less information about inpatient services. This focus is likely to be due in part to the sources of indicators used (primarily HEDIS 2.0) which center on ambulatory and preventive care.

Measures of Preventive Services. Preventive services are well-represented on performance reports of health plans and those of some employers. Xerox presents childhood immunization, cholesterol screening, mammography rates, cervical cancer screening, eye exams for diabetics, and care in the first trimester of pregnancy. UHC, Kaiser, and U.S. Healthcare use childhood immunization rates, mammography rates, pap smear rates, and eye exams for diabetics. Hospital performance reports provide no information on these services.

Measures of Financial Risk. Plans are increasingly paying physicians based on incentive arrangements that may influence the delivery of care. Fully 60 percent of health plans have transferred some financial risk to individual primary care physicians and 42 percent have transferred some financial risk to specialists (Gold et al. 1995). Well-designed risk-sharing arrangements that hold parties accountable for aspects of health care under their control are important to encourage efficient provider behavior. The Commission has been concerned, however, that if the financial incentives are too great, reduced access or inappropriate care of individuals may result. In response to this concern, the Commission recommended that the total risk assumed by individual or small groups of physicians be limited through some form of reinsurance and that HCFA should strengthen its monitoring of prepaid health plans (PPRC 1989). Congress legislated these changes for the Medicare and Medicaid programs in the Omnibus Budget Reconciliation Act of 1990.¹⁶

The Commission also recommended that disclosing information on risk-sharing arrangements to beneficiaries might provide additional protection, but that provision was not enacted (PPRC 1989; 1994). Although HEDIS contains measures of the financial risk borne by physicians, none of the performance reports that are described in this chapter, including the HEDIS pilot performance report, have incorporated this information. Performance reports could potentially provide a vehicle for disclosing such information, however, and methods for informing beneficiaries about risk-sharing arrangements should be explored. If a feasible method can be developed, disclosure should extend to arrangements involving first-contact or gatekeeper physicians for plans that have multitiered arrangements.

¹⁶ While HCFA published preliminary rules to implement this provision in 1992, it has not published final rules (HCFA 1992).

Adjustments for Patient Mix. Most reports do not present measures adjusted for differences in the health status or other characteristics of the populations served. Two explanations may account for why few performance reports produced to date have such adjusted measures. First, development of adjusters is still at an early stage, and specific adjusters are not widely agreed upon.¹⁷ Second, health plans that produce performance reports for noncomparative purposes likely do not find the use of adjusters especially important. When comparisons among plans are made, however, the use of unadjusted quality of care measures could be misleading to consumers and purchasers.

The degree to which adjustments to measures will affect the results is not clear from early performance reports. For example, survey results published in the performance report prepared by the FEHBP were adjusted for age, sex, and health status, but comparisons with unadjusted data show significant differences in only a few cases. It is likely that the importance of making adjustments to measures will depend on the heterogeneity of enrolled populations, and will vary for different measures, assuming that some types of measures are more sensitive to underlying characteristics of the population.

Comparability of Performance Reports. Of the few efforts to produce performance reports, most fall short of providing information that can be confidently used to make selections among plans. First, comparison data are not presented on many reports. Second, there are no independent reviews of the data submitted or published by plans. Third, in general, fee-for-service plans are not producing performance reports.

In general, reports presented by plans do not provide information about other plans that could be used to compare performance. Even where plans use similar indicators on their reports, the variety of methods used to calculate results make such comparisons unreliable. Performance reports distributed by purchasers, such as employers, typically provide more comparable information on multiple plans.

Consumer satisfaction data are among the most easily standardized at this stage of development. AHCPR is developing a standardized consumer satisfaction survey for use by health plans, employers, consumer groups, and other organizations. The purpose of this project is to develop a model consumer survey, develop data collection procedures, and prepare a user's manual. In the meantime, most surveys that have been developed were based on the consumer satisfaction survey created by the Group Health Association of America.

Only a few of the performance reports present information that has been audited. An approach to auditing has been developed, however, in NCQA's performance report pilot project. This project provided the most extensive auditing, using a two-part process to assess validity. First, plans furnished information on systems capabilities, data processing steps, and computer program specifications. Second, NCQA performed an on-site audit, emphasizing areas prone to data errors as well as data acquisition and health plan characteristics that might influence data quality or completeness. The

¹⁷ For a discussion of the methodological issues, see Iezzoni (1994).

audit went further to compare a subset of actual administrative data against medical records or other source documents (O’Kane 1994; NCQA 1995).

The audit process NCQA used in its pilot project proved to be extremely challenging, but demonstrated that auditing could be done. In some situations, administrative data did not contain diagnosis information, or used nonspecific or plan-specific procedure codes. In others, records could not be tracked because historical data had been destroyed. In still others, services that were carved out for provision by outside providers, such as mental health and chemical dependency services, were difficult to track. In general, it was easier for plans that paid by fee-for-service methods to collect data on each service provided, but those plans had difficulty capturing necessary clinical information (NCQA 1995).

To date, traditional indemnity plans have not attempted to develop performance reports, although information on these plans based on consumer satisfaction surveys have been included in performance reports provided by employers, business coalitions, and others. Groups producing these reports note, however, the lack of comparability between prepaid and indemnity plans. For example, FEHBP’s performance report cautions consumers to be aware that satisfaction surveys used by fee-for-service plans employed slightly different wording than those used by prepaid plans. The report also notes that information on prepaid plans is regional, while that on fee-for-service plans is national, suggesting that fee-for-service plan member responses to questions on such issues as access to care may not be particularly meaningful to a specific consumer choosing a health plan. Generally, clinical measures of quality have not been available for fee-for-service plans.

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DEVELOPMENT AND USE OF PRACTICE GUIDELINES

Practice guidelines can serve as a tool for improving patient outcomes and increasing the value of health expenditures by facilitating informed medical decisionmaking. Guidelines can help patients get the care they need and prevent their exposure to the risks of unnecessary services by identifying when services are beneficial and when they are not. They can also support cost-containment efforts by providing information on the benefits, risks, and costs of a service that can help physicians, patients, and others make appropriate choices in an environment of constrained resources. Without information from valid guidelines, attempts to contain health care costs may result in reductions in use of appropriate services as well as unnecessary ones. Recognizing the potential of practice guidelines to increase the value of health care expenditures, the Commission has monitored progress in this field over time and has advised the Congress about appropriate federal roles for supporting guideline development and related efforts.

Development and dissemination of valid practice guidelines was expected to motivate guideline use in a practice environment that provided incentives to reduce volume of services and restrain growth in costs. In its 1989 annual report, the Commission recommended that the federal government take an active role collaborating with the private sector to formulate guidelines (PPRC 1989). It later applauded the Congress's creation of a new agency, the Agency for Health Care Policy and Research (AHCPR), to serve as a focal point for federal efforts in this area (PPRC 1990). In 1992, when AHCPR issued its first guidelines and private-sector guideline development had begun to accelerate, the Commission made recommendations on how to obtain the most value from existing guidelines, devise guidelines that could play a role in cost containment, and ensure that future guidelines would be valid and produced efficiently (PPRC 1992).

Because of the activities undertaken by AHCPR and others in the public and private sectors, more is now known about practice guidelines. Comprehensive analyses of guideline development and use have identified relevant issues and drawn conclusions that can help to steer future efforts (OTA 1994; IOM 1992). Among the most important conclusions reached is that dissemination alone is insufficient to motivate the widespread integration of guidelines into medical decisionmaking. A number of obstacles, some related to the medical decisionmaking environment and others to the guidelines themselves, have been identified that inhibit compliance with guidelines. Increases in the range of guideline applications and in the incidence of their implementation reflect the understanding that taking additional steps to put guidelines into practice is necessary for them to affect practice. Such steps include not only establishing incentives for compliance with guidelines, but in some cases also making changes to the practice environment or providing tools to facilitate compliance. The movement toward managed care has expanded the potential and increased the motivation to take such steps.

Although much remains to be learned about practice guidelines and their uses, current efforts can build on newly acquired understanding. This year, the Commission reviewed the progress that has been made in this field and analyzed the need for a changed vision regarding the important issues and the focus of federal activity. Rapid growth in the production of guidelines and changes in development efforts have implications for the types of guidelines selected for federal sponsorship and for the activities needed to support guideline development efforts at other levels. Increased understanding of the ways in which guidelines are applied and barriers that inhibit use suggests modifications to guideline development activities that would facilitate both implementation by organized groups of providers and use by individuals.

RECOMMENDATIONS

Practice guideline development and related activities sponsored by the Agency for Health Care Policy and Research play an important role in advancing public- and private-sector activity in this field. The Congress could strengthen this role by directing the agency to focus guideline development on topics for which private-sector development is unlikely or problematic and on those topics that would be most useful to organized groups of providers and systems of care.

The Agency for Health Care Policy and Research should continue to take steps to facilitate the use of the practice guidelines it issues by (1) developing review criteria for each guideline issued, and (2) supporting the development of tools to facilitate compliance with the guidelines.

The Agency for Health Care Policy and Research should facilitate the development and use of valid guidelines produced in both the public and private sectors by (1) publishing and updating summaries of the scientific evidence on salient medical conditions and services, (2) coordinating a public- and private-sector partnership for developing a clearinghouse to evaluate and disseminate guidelines, and (3) strengthening the research infrastructure needed to improve guideline development and use.

Understanding the issues and policy alternatives that have emerged requires an exploration of the evolving environment in which practice guidelines are being developed, adapted, and implemented. This chapter therefore begins by describing that environment, focusing on changes that have implications for federal activity. Some of the key issues that have arisen in this new environment are examined in the second section. The final section considers areas in which federal government initiatives or reorientation of current activities could help to resolve some of these issues and continue the progress toward harnessing the full potential of practice guidelines.

BACKGROUND: THE CURRENT ENVIRONMENT FOR PRACTICE GUIDELINE ACTIVITY

This section provides an overview of practice guideline activity and reviews what has been learned about guideline use and effects on practice. The section highlights developments that illustrate new challenges and opportunities that have arisen, which are then discussed in the following section.

Update on Practice Guideline Development

Since the Commission last analyzed guideline development processes and activities, several developments can be singled out as particularly important. First, guideline development activity has increased substantially. AHCPR has also become a leader in guideline development. Finally, trends in adapting national guidelines and creating guidelines at the local level have emerged. This section describes those developments.

Expanding Development. The development of practice guidelines has increased rapidly in recent years, as evidenced by growth in both the number of sponsors and the number of guidelines produced. The American Medical Association (AMA) has identified more than 1,800 guidelines to date, issued by approximately 75 sponsoring organizations, up from 700 guidelines produced by 30 organizations in 1989 (AMA 1989; 1995). These numbers underestimate development activity, however, as they represent primarily those guidelines issued by medical professional organizations and government entities, not those produced by hospitals, academic medical centers, health plans, public and private researchers, and malpractice insurers.

Rapid growth in the number of groups developing guidelines has entailed overlap in topic selection and issuance of conflicting recommendations. Among the explanations that have been put forth for inconsistencies in recommendations are the use of different development methodologies, different time frames of development, inconclusive or insufficient scientific evidence, and different values placed on potential outcomes (Hayward et al. 1991). Of particular importance are differences among developers in the degree to which analysis of available scientific evidence is invested in and relied upon as opposed to consensus development, and in the use of external review of the group's efforts.

Medical Specialty Societies. Specialty societies have stepped up their efforts to produce and disseminate practice guidelines, partly in an effort to improve quality of care and partly to take the initiative in guideline development (GAO 1991). Some guidelines are intended for use by members of the specialty, while others are meant to be used more widely (OTA 1994). Processes used by these groups to devise guidelines vary, but most include literature review and consensus among development committee members (GAO 1991). Some rely entirely on consensus as a basis for guideline recommendations, which may serve to codify current practice rather than to promote diagnostic and treatment modalities that have been documented to be effective.

Agency for Health Care Policy and Research. Although AHCPR is but one of several entities within the federal government that undertakes work in clinical practice guidelines, the agency has served as the focal point for federal efforts in this area.¹ The agency has released 15 guidelines to date, with another seven guidelines currently under development (Table 17-1). AHCPR-sponsored guidelines have generally addressed the clinical management of health conditions, rather than specific medical services.²

Table 17-1. Practice Guidelines Sponsored by the Agency for Health Care Policy and Research

Guideline Topic	Release Date or Target Release Date
Acute Pain Management: Operative or Medical Procedures and Trauma	March 1992
Urinary Incontinence in Adults	March 1992
Pressure Ulcers in Adults: Prediction and Prevention	May 1992
Cataract in Adults: Management and Functional Impairment	February 1993
Depression in Primary Care: Detection, Diagnosis, and Treatment	April 1993
Sickle Cell Disease: Screening, Diagnosis, Management, and Counseling in Newborns and Infants	April 1993
Early HIV Infection: Evaluation and Management	January 1994
Benign Prostatic Hyperplasia: Diagnosis and Treatment	February 1994
Management of Cancer Pain	March 1994
Unstable Angina: Diagnosis and Management	March 1994
Heart Failure: Evaluation and Care of Patients with Left-Ventricular Systolic Dysfunction	June 1994
Otitis Media with Effusion in Young Children	July 1994
Quality Determinants of Mammography	October 1994
Acute Low Back Problems in Adults	December 1994
Treatment of Pressure Ulcers	December 1994
Post Stroke Rehabilitation	1995
Cardiac Rehabilitation	1995
Recognition and Initial Assessment of Alzheimer's and Related Dementia	1995
Urinary Incontinence--Update	1995
Smoking Cessation	To be Determined
Colorectal Cancer Screening	To be Determined
Chronic Pain: Headache	To be Determined

SOURCE: Agency for Health Care Policy and Research

¹ Other federal entities issuing guidelines include the U.S. Preventive Services Task Force, the Centers for Disease Control and Prevention, and several components of the National Institutes of Health. In its recent report, the Office of Technology Assessment (1994) describes the guideline development activities undertaken by these and other organizations in the public and private sectors.

² The agency's authorizing legislation directed the agency to develop "condition-specific" or "treatment-specific" (service) guidelines. In part to dispel concern within the physician community that guidelines would be developed primarily as a cost-containment tool, the agency focused its efforts on developing guidelines for conditions. Having established its credibility, the agency may now be better positioned to address costs and cost-sensitive topics. As the Commission has noted, guidelines that describe appropriate indications for services can play an important role in containing costs (PPRC 1992).

The guidelines issued by AHCPR are the products of cooperative efforts between the public and private sectors. They are produced by panels of roughly 15 to 20 experts that are appointed by the agency or convened by a private nonprofit organization under contract with it. These expert panels normally include both consumer representatives and nonphysician practitioners in addition to physicians from relevant disciplines. Although the agency provides the expert panels with administrative and financial support, as well as a methodology for development, the panels formulate guideline recommendations and determine guideline content. The guidelines are subject to peer review of scientific validity and pilot testing of guideline usability before issuance by the agency.

The guidelines incorporate available evidence on health outcomes into sets of recommendations concerning appropriate management strategies for patients with specific conditions. The expert panels interpret this evidence and formulate the recommendations, basing them on opinion in some cases where the evidence is insufficient. Many guideline panels have rated the strength of the evidence basis for each recommendation included in the guideline, although the rating method used has varied.

AHCPR-sponsored guidelines have been considered to be thoroughly researched and credible interpretations of the evidence.³ The guidelines have been particularly credited for their multidisciplinary approach to evaluating treatment alternatives and for the comprehensiveness of the literature reviews from which they are developed. The rigorous development process may account for significant time and resource expenses, however. The guidelines each cost between \$0.5 million and \$1 million to produce (not including AHCPR staff and dissemination costs), and take between one and one-half and three and one-half years to complete (OTA 1994).⁴

In selecting topics for guideline development, the agency considers several criteria: the potential for reducing clinically significant and unexplained variations in practice or outcomes; the number of persons affected by the condition; the adequacy of scientific evidence; the amenability of the condition to prevention; the needs of Medicare and Medicaid beneficiaries; and the cost of the condition to all payers, including patients (AHCPR 1993).⁵

³ This is reflected by the endorsements AHCPR-sponsored guidelines have received from relevant medical specialty societies, and by other efforts that have demonstrated widespread acceptance, such as inclusion in various health system reform proposals.

⁴ AHCPR is now in the process of exploring ways in which it might become more efficient in the development of guidelines. While it is possible that efficiency gains could affect guideline quality, the agency's experiences should suggest actions aimed at increasing efficiency that pose a minimal threat to guideline quality.

⁵ Reflecting concerns about early choices of guideline topics, the Omnibus Budget Reconciliation Act of 1992 directed AHCPR to report to the Congress on optimal methods for setting priorities among guideline topics. The Institute of Medicine recently completed a study of the agency's priority-setting process, concluding that the process now used is reasonable, although greater emphasis should be placed on a guideline's potential to improve outcomes or increase efficiency. In assessing how well a guideline topic under consideration meets this criterion, both the magnitude of expected effects and the probability of achieving them must be considered (IOM 1995).

Local Development and Guideline Adaptation by Organized Systems of Care. The health system's evolution toward accountability for quality and costs may be a motivating factor in the increased practice guideline activities of health plans, hospitals, and other organized systems of care. These groups adopt or adapt nationally developed guidelines for their own use, and some groups also develop or sponsor development of their own guidelines. Reasons for adaptation of guidelines include the desire to obtain local clinician input and support, and the perceived need to customize the guideline to meet an organization's unique requirements. Local guideline development is often initiated when an appropriate guideline addressing a topic of interest to the group has not been produced elsewhere (Taylor 1994).⁶

Adaptation of nationally developed guidelines occurs in two ways. First, specific recommendations or other aspects of a guideline document may be modified by local organizations when adapting the guideline for their use. A second type of adaptation occurs where a guideline document is translated into another type of prospective or retrospective decision aid, such as review criteria that can be used to monitor compliance or a critical pathway that illustrates the process of care undertaken in a particular system or organization.

Much of the information now available on local guideline development and adaptation of nationally developed guidelines pertains to the activity undertaken by managed-care plans. A survey of such plans sponsored by the Commission and conducted by Mathematica Policy Research (MPR) and the Medical College of Virginia (MCV) found that nearly all plans that reported use of practice guidelines said that they relied on their medical staffs for internal development of at least some guidelines (Table 17-2) (Gold et al. 1995).⁷ About three-quarters of plans using guidelines reported having used guidelines that were issued by their parent company, while a third of guideline users reported having contracted with another organization for external development.

The MPR/MCV survey found that managed-care plans relied most on national professional or provider groups as a source for the content of their guidelines. This was true both in terms of the percentage of plans using these groups as a source and the percentage of plans reporting that they "always" use them (Table 17-2). Guidelines issued by federal agencies were also used by the vast majority of plans, but did not receive as many "always" responses as national groups. About half of plans using guidelines reported use of another source for guideline content, such as peer-reviewed literature (Gold et al. 1995).

⁶ Brown and his colleagues (1995) provide an informative description of the adaptation of a nationally developed guideline for use at the local level.

⁷ Plans' probability of selection in the MPR/MCV survey was proportional to enrollment size, and market areas included in the sample were selected to enhance the survey's focus on the largest plans. While this approach is consistent with the survey's goals of assessing the status of the most successful plans and predicting future trends in managed care, the results represent the experience of the typical managed-care plan enrollee better than that of the typical managed-care plan (Gold et al. 1995).

Table 17-2. Sources of Practice Guidelines Used by Managed-Care Plans, by Extent of Use, 1994 (percentage of responding plans)

Guideline Source	Extent of Use			
	Always	Sometimes	Rarely	Never
Federal Agencies	60	35	3	2
National Professional or Provider Groups	77	23	0	0
Parent Company	37	23	17	23
Plan's Medical Staff	75	20	3	2
Contract with Another Organization	11	15	8	66
Other	36	16	0	48

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

NOTE: Sixty-eight plans reported use of practice guidelines. Sixty-two plans responded to the question concerning use of a parent company as a source of guidelines. Sixty-five plans responded to the other questions on guideline sources.

Efforts to Facilitate Use

Guideline developers and others have taken a number of routes in their efforts to put guidelines in the hands of physicians and other medical decisionmakers. Dissemination efforts have in some cases evolved with new technology that facilitates easier access and permits timely updates. While independent dissemination efforts still predominate, efforts to amass guidelines from a number of sources for collective dissemination have recently been initiated or expanded. Finally, efforts to disseminate results of guideline evaluations and to provide information that can be used to compare guidelines have also begun.

Dissemination of Guidelines. Efforts to disseminate guidelines are in some cases quite substantial, although there is considerable variation in approaches used by different developers. AHCPR has been particularly active in its dissemination efforts.⁸ Nevertheless, these dissemination efforts are unlikely to reach all providers or patients who could potentially use guidelines.

The intensity of dissemination efforts and the media used for dissemination vary by the issuing organization and perceived importance of the guideline. Guidelines generated by health plans or other organizations have often been confined to dissemination and use among the group's providers or patients. Those produced by specialty societies and other provider organizations may be published in the groups' professional journals or otherwise distributed to the membership and others.⁹ Guidelines issued by prominent groups or on topics of broad interest garner national media attention, and at least

⁸ VanAmringe and Shannon (1992) described the agency's broad and multifaceted approach to guideline dissemination.

⁹ The American College of Physicians (1994) annually publishes a reference that provides the text and structured abstracts of the guidelines produced by its Clinical Efficacy Assessment Project.

two newsletters monitor guideline activities and note new releases, while another provides abstracts and reviews of selected guidelines.¹⁰

AHCPR uses a number of approaches to guideline dissemination. The agency's guidelines are heavily promoted and are distributed to national and state medical and nursing societies, medical professional associations, consumer groups, and other potential users. These groups may, in turn, disseminate the guidelines to their members or constituents. More than 14 million paper copies of the guidelines have been distributed. Guidelines are also available online and through the agency's fax-on-demand service.

Collective Dissemination. Increasing numbers of available guidelines and diverse sources of sponsorship have spurred efforts to collect guidelines for mass dissemination. The efforts of the AMA, the National Library of Medicine (NLM), ECRI (formerly known as the Emergency Care Research Institute), and the Group Health Association of America (GHAA) provide illustrations.

The AMA's Practice Parameters Partnership and Forum has issued annually since 1989 a directory of the practice parameters developed by government and specialty groups that lists guidelines by subject, sponsor, and title. The AMA also makes the text of a select number of the practice parameters listed in its directory available on CD-ROM. Both are updated quarterly.

The NLM has developed an online database that contains the full text of guidelines, consensus conference reports, and technology assessments issued by AHCPR, the National Institutes of Health, and the U.S. Preventive Services Task Force (USPSTF).

ECRI has developed a database that includes descriptive and ordering information for more than 24,000 practice guidelines, technology assessments, standards of care, and state and federal laws and regulations (ECRI 1995). The information has been published in a directory and is to be made accessible online later this year.

The GHAA recently began to take steps to compile practice guidelines developed in or modified by health maintenance organizations (HMOs). To be accepted for publication in the GHAA index, a guideline will have to have been implemented in an HMO, and the implementing plan must be willing to provide a contact person to share information about the guideline. The organization plans to make its index available through its online network as well as in hard copy and diskette forms (GHAA 1994b).

Disseminating Results of Guideline Evaluation. Information about guideline validity, or the degree to which following a guideline will result in predicted outcomes, and guideline usability is needed by those deciding whether to use a guideline and those deciding which to use. Guideline use can be

¹⁰ Newsletters include *Medical Outcomes and Guidelines Alert* and *Report on Medical Guidelines and Outcomes Research. Abstracts of Clinical Care Guidelines*, published by the Joint Commission on Accreditation of Healthcare Organizations, provides abstracts and peer commentary on guidelines.

facilitated by disseminating the results of guideline evaluations, or by providing information that can be used to compare guidelines. Efforts in this direction have begun.

The first step toward evaluation is the development of criteria and methods for assessment. The AMA produced a set of criteria that can be used to evaluate a guideline's development and dissemination process (AMA 1995). The Institute of Medicine (IOM) drafted a comprehensive instrument to evaluate guidelines more broadly (IOM 1992). AHCPR has also sponsored research to identify analytical designs and methods that can be used to evaluate the guideline development process, and to correlate features of the development process with measures of guideline validity, acceptability, usability, and effectiveness in improving patient care (AHCPR 1994a).

Some of these criteria and instruments that have been developed have also now been used in practice to evaluate guidelines. For example, the AMA has used its criteria to evaluate approximately 200 guidelines that were voluntarily submitted for assessment, about 50 of which were found to conform to the criteria established (AMA 1995).¹¹ The guideline assessment instrument drafted by the IOM has been adapted and used by several groups. Notably, the Minnesota Department of Health has used a version of the IOM's assessment instrument in its evaluation of guidelines required by state health reform legislation.

Finally, efforts to communicate the results of guideline evaluation to those who would use guidelines are now in the early stages. In its annual index of practice guidelines the AMA now designates guidelines that were evaluated and found to conform with its criteria, although those that are evaluated and found not to conform are not designated. The GHAA's index will include information on implementation experience, effects on outcomes of care, and other information that can be used to evaluate and compare guidelines (GHAA 1994b).

Implementation of Guidelines

In order to affect practice patterns and outcomes, practice guidelines must be used by providers and patients. Application by groups or systems of care is now recognized to be instrumental in promoting or supporting use at the individual level. Practice guidelines are being applied by a growing range of parties interested in affecting the quality or costs of medical care, including health plans, purchasers, and state and federal government entities.

Guideline application by these groups varies in several respects. A variety of approaches is used by those actively seeking to put guidelines into practice that may include promoting guideline use, providing incentives to encourage use, taking steps to facilitate use, or requiring compliance with guidelines. Another way in which guideline use varies is in the guideline product used in a particular

¹¹ The fact that only about one-quarter of voluntarily submitted guidelines were judged to have been developed in conformance with designated criteria suggests that there may be a considerable gap between guideline quality as perceived by sponsors and that perceived by external reviewers. It further supports the belief that broad and systematic evaluation would be useful in differentiating guidelines.

application. For example, physicians may desire both a detail-rich, evidence-laden guideline to use as a reference and an extremely short summary or algorithm highlighting a guideline's key recommendations to use as a decision aid. Managed-care plans may use guideline-based review criteria and actionable protocols. Patients may benefit from information about their condition, answers to common questions, and a discussion of treatment alternatives, which can be provided in a brochure, video program, or, potentially, other formats. This section illustrates the diversity of efforts now being undertaken to adapt and implement guidelines.

Use in Organized Systems of Care. Use of guidelines by organized systems of care is of particular interest because these groups are able to adjust incentives and modify the infrastructure in which medical decisionmaking occurs to facilitate guideline use. Therefore, the implementation of guidelines in these organizations offers particular potential to influence practice.

Range of Applications. While organized groups of providers and systems of care have developed and adopted guidelines since the mid-1980s and in some cases before, steps for actively implementing those guidelines have only more recently gained prominence. Groups have taken a number of approaches to guideline implementation.

Managed-care plans, hospitals, and other organized health care delivery systems are increasingly implementing practice guidelines through their continuous quality improvement (CQI) programs as part of efforts to improve performance throughout the organization. Groups using the CQI approach identify barriers to guideline compliance, develop methods to resolve them, and monitor efforts through data analysis. The Harvard Community Health Plan provides an example of this approach. The plan develops individual implementation strategies for each specific guideline that include such techniques as educational programs, computer-generated reminders, and followup studies (OTA 1994; Vibbert et al. 1994).

Medical review criteria may be derived from practice guidelines, and efforts to do so are now under way. These criteria may be used by groups of providers and systems of care for a variety of purposes, ranging from providing physicians with feedback on their practice patterns to making determinations about the appropriateness of a treatment. In the first case, profiles of physician practice patterns could be compared with benchmarks derived from practice guidelines, although most profiling undertaken to date has been used to make comparisons among peers (Shapiro et al. 1993).

Another application for review criteria is in the preauthorization or utilization review programs that are used by both fee-for-service and managed-care plans to evaluate care on a prospective or retrospective basis. These programs have recently evolved from a narrow focus on length and necessity of hospital stays to more detailed assessments of the appropriateness of specific treatments (OTA 1994). An increasing number of health plans have adopted a computerized preauthorization program based on proprietary appropriateness criteria that are derived from actual or implied practice guidelines. While this type of system may succeed in reducing the number of inappropriate procedures that are performed, the likelihood of sustained changes in practice seems diminished where physicians are not made aware of the specific appropriateness criteria used.

Some groups provide financial or other incentives for providers to follow guidelines. One managed-care plan affiliated with Blue Cross and Blue Shield established a policy of requiring certain specialists to agree to follow designated guidelines as a condition of participation in the network (Vaupel 1994). This practice has also begun to be used by medical liability insurers, some of whom offer discounts to physicians agreeing to conform to guidelines, and at least one of whom now mandates conformance as a condition of insurance (Oberman 1994).

Extent of Implementation. While it is difficult to determine the extent to which guidelines are being used in organized systems of care, by all accounts interest in guideline implementation is increasing. Several of the groups representing managed-care plans, hospitals, and other organized health care delivery systems have recently begun to assist their members with guideline implementation issues. The GHAA, for example, now sponsors educational programs and interactive forums on guideline implementation in HMOs (GHAA 1994b). The American Hospital Association has developed a framework for implementation of guidelines in the hospital setting (Koska 1992).

The MPR/MCV survey provides an indication of the extent to which guidelines are being implemented in managed-care plans. Three-quarters of the HMOs surveyed reported use of formal written practice guidelines, as did more than one-quarter of preferred provider organizations (PPOs) (Table 17-3). About half of the plans reporting guideline use described their use as fairly extensive, while half reported using guidelines in a few areas only. Another recent survey found that 82 percent of HMOs reported that they promote the use of guidelines in their plans (GHAA 1994a).

While some reported use is undoubtedly from plans that merely develop or adopt guidelines and make them available to providers, there are indications that many plans are taking an active approach to integrating guidelines into medical practice. The MPR/MCV survey found that 87 percent of plans that reported use of guidelines said that they also monitored compliance with those guidelines, and 80 percent of those monitoring compliance reported that they met with physicians to review results (Table 17-3).¹² Another survey found that 85 percent of HMOs reporting plan promotion of guideline use said that they have staff formally assigned to developing and implementing guidelines (GHAA 1994a).

Extent of Implementation of AHCPR-Sponsored Guidelines. Evidence on the extent to which guidelines sponsored by AHCPR have been adopted or adapted for use in most types of organized systems of care is not available, but survey evidence pertaining specifically to managed-care plans suggests that the guidelines produced to date have not been among the most widely used. A recent survey found that 41 percent of HMOs reporting guideline use said that they had adapted AHCPR-sponsored guidelines and 82 percent reported modifying guidelines from another external source (GHAA 1994a). As discussed above, the MPR/MCV survey also revealed greater use of guidelines

¹² HMOs appear to use practice guidelines more than PPOs, and to be more active in incorporating them into medical practice. One-third of the HMOs surveyed by MPR and MCV reported making extensive use of formal written practice guidelines and undertaking both compliance monitoring and physician feedback. By contrast, only 7 percent of PPOs surveyed reported the same level of activity (Gold et al. 1995).

Table 17-3. Use of Practice Guidelines by Managed-Care Plans, by Plan Type, 1994
(percentage of responding plans)

Use of Practice Guidelines	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Extent of Use of Formal Written Practice Guidelines				
Fairly extensive	32	34	40	17
In a few areas only	31	41	36	10
Not used	37	24	24	72
Followup On Guidelines				
Compliance monitored ^a	87	91	81	100
Meets with physician to review results ^b	80	80	87	50
Plans Responding (number)	108	29	50	29

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et al. 1995).

^a Only plans reporting use of guidelines responded to this item.

^b Only plans reporting that they monitor compliance with guidelines responded to this item.

NOTE: Practice guidelines were defined as "an explicit statement of what is known and believed about the benefits, risks, and costs of particular courses of medical action to assist decisions about appropriate health care for specific clinical conditions."

issued by professional organizations than those issued by federal agencies. While these findings may be partly explained by differences in the quantity of guidelines that have been produced, additional factors may also contribute to them.

Results from the MPR/MCV survey suggest that the topics that have been addressed by AHCPR-sponsored guidelines may not be those of greatest interest to managed-care plans. Plans that reported guideline use were asked about their use of guidelines for ten specific conditions, five of which had been addressed in guidelines produced by AHCPR (Table 17-4).¹³ Ranking the results reveals that the five conditions for which plans most often reported using guidelines had not been the subject of AHCPR-sponsored guidelines, while the five conditions on which AHCPR had produced guidelines were ranked lowest.

Some of the highly ranked topics have been the subject of longstanding guidelines while AHCPR-sponsored guidelines were more recently developed, but this may not be a complete explanation.

¹³ The five conditions included in the survey that had been addressed in guidelines issued by AHCPR at the time the survey was conducted were acute pain management, depression in primary care, sickle cell disease, early HIV infection, and benign prostatic hyperplasia. The other five conditions or services included in the survey were childhood immunizations, screening for colorectal cancer, prenatal care, management of childhood asthma, and screening mammography. Since the survey was fielded, AHCPR issued its guideline on quality determinants for mammography. Plans were not asked whether their mammography screening guidelines pertained to quality determinants or to the appropriateness of screening.

Reports of use suggest that the topics addressed in AHCPR guidelines may be of greater interest to other groups, such as nursing hospitals and homes. For example, the AHCPR-sponsored guideline on management of acute pain has been used in hospital quality improvement programs, and is arguably most effectively implemented in that setting (AHCPR 1994b). Because managed-care plans appear to be at the forefront of many implementation efforts, however, lower usage of the agency's guidelines among these plans could raise concerns as to the extent of their potential effects on practice.

Table 17-4. Use of Practice Guidelines for Specific Conditions or Services by Managed-Care Plans Reporting Use of Guidelines, by Plan Type, 1994 (percentage of responding plans)

Specific Condition or Service	All Plans	Group/Staff HMOs	Network/IPA HMOs	PPOs
Childhood Immunizations	97	100	100	75
Screening Mammography	91	86	100	63
Prenatal Care	79	76	78	88
Screening for Colorectal Cancer	75	62	82	75
Management of Childhood Asthma	65	76	65	38
Benign Prostate Problems	35	50	32	13
Early HIV Evaluation and Treatment	35	43	35	13
Depression Treatment - Primary Care Providers	27	24	32	13
Acute Pain Management	26	5	38	25
Sickle Cell Disease	15	15	16	13
Plans Responding (number)	68	22	38	8

SOURCE: Survey of group and staff HMOs, network and independent practice association HMOs, and preferred provider organizations, sponsored by the Physician Payment Review Commission (Gold et. al 1995).

NOTE: Up to three plans failed to respond to a specific item.

Applications for Patients. Practice guidelines provide an important avenue for the exploration and inclusion of patient preferences in medical decisionmaking. Efforts to develop tools to facilitate patient involvement in medical decisionmaking are representative of a systemwide trend toward patient-centered care. These efforts may reflect preliminary research findings or the belief that for certain medical conditions the appropriateness of a particular treatment depends highly on the subjective values patients associate with alternative outcomes (Wennberg 1990). In addition, increased patient involvement in medical decisionmaking may be attractive to health plans in part because it may lead to greater patient satisfaction and perception of quality. The potential for cost savings may also be a factor, to the extent that it is believed that fully informed patients may choose more conservative treatments than their physicians.¹⁴

¹⁴ Results of experiments that informed patients about their options in the treatment of benign prostatic hyperplasia support this hypothesis (Wennberg 1990).

While most practice guidelines that have been developed are oriented toward providers, some have been developed or adapted for patient use. Two examples illustrate approaches to making guideline information available to patients. First, AHCPR produces a patient guide for each of the guidelines it sponsors. Each provides patients with information about their medical condition, describes treatment alternatives and their risks and benefits, and suggests questions to discuss with physicians. Many of these guides, which are issued in English and Spanish, may have been disseminated through providers and health plans in addition to those obtained directly by patients.

Another effort to translate outcomes research findings for use in patient decisionmaking has been undertaken by the Foundation for Informed Medical Decision Making, which develops video programs that help patients understand their conditions and the benefits and risks of treatment alternatives. Originally developed in an interactive laser disk format and recently expanded to videotapes for home viewing, programs have been developed for 11 medical conditions to date (Borzo 1994).

Use by Purchasers. As the purchasers of health services have become both more sophisticated and more organized, they have sought to hold health plans and providers accountable for delivering quality care and value for their health care expenditures. Practice guidelines are increasingly looked on as one means to this end.

Because outcomes measures are still in their infancy, purchasers and others seeking to measure quality of care now rely mainly on measures of process. Practice guidelines can be used to define the appropriate processes of care, and criteria or standards derived from those guidelines may be used as a proxy to evaluate the quality of care. On the cutting edge of this development is the Health Plan Employer Data and Information Set, a set of measures developed to assess health plan performance, which uses quality measures derived from guidelines for childhood immunizations, cholesterol screening in adults, and others (NCQA 1993).

Organized purchasers can use financial and other incentives to motivate conformance with guidelines. The Bay Area Business Group on Health, for example, has adopted guidelines based on the recommendations of the USPSTF, and plans to withhold up to 2 percent of premiums from HMOs that fail to meet specific goals for providing screening and counseling services (Gates 1994).

Applications for Medicare. The Medicare program is in the process of undergoing a change in its approach to quality assurance in which practice guidelines are expected to play an increasingly prominent role (Jencks and Wilensky 1992). As part of the so-called fourth scope of work, Medicare's peer review organizations (PROs) are in the process of changing their focus from identifying and penalizing individual instances of poor quality care to assessing practice patterns and facilitating quality improvement. A major project funded by the Health Care Financing Administration recently demonstrated the ability to profile physicians, compare their performance to recommended practice, and provide them with educational feedback (Palmer et al. 1994).

AHCPR has sponsored research now being conducted by the American Medical Review Research Center (AMRRC) to develop, test, and apply review criteria based on three of its guidelines in five PROs (AHCPR 1994a).¹⁵ The PROs are also involved in developing, implementing, and evaluating alternative educational outreach strategies based on the AHCPR-sponsored guideline for benign prostatic hyperplasia.

Use of Guidelines at the State and Federal Level. In addition to applications in decisionmaking at the individual level and policy at the organizational level, a role for practice guidelines has now appeared in legislation proposed and enacted at the state and federal levels.¹⁶ Guidelines were featured in a number of the legislative proposals for health system reform that were considered by the Congress last year. Some state reform legislation, both proposed and enacted, also includes a role for guidelines.

The most prevalent use is in setting a standard for care that can be used by providers as a defense in medical malpractice suits, such as is now being done in a few states. Maine's experimental program, now in its fourth of five legislated years, is the only one of its kind fully under way. The approach has yet to be tested, as to date no lawsuits have been brought in which the guidelines were a factor (Crane 1994).

Evidence of Effects on Practice

The substantial effort now being put into developing and implementing practice guidelines may be more reflective of belief in the potential of guidelines than of their demonstrated effects. Most of the research on guideline effects has assessed effects on practice patterns rather than on outcomes or health spending, and this research has yielded somewhat contradictory results (OTA 1994). This section considers evidence and research under way on guidelines' capacity to influence practice in instances where they are implemented, and then discusses steps to evaluate whether specific guidelines have had a broader impact. It then considers the limited available evidence on the extent to which guidelines are used by physicians in making medical decisions.

Capacity to Influence Practice. A recent review of the literature led the Office of Technology Assessment (OTA) to conclude that dissemination alone is normally insufficient to change practice, but that certain practice guidelines, when introduced under certain circumstances, appear to have changed practice patterns in ways consistent with the guidelines. On the basis of its analysis, OTA theorized that a range of factors, some relating to the guideline itself and some relating to dissemination and implementation, influence a guideline's impact on practice. Such factors include the intensity and follow-through of dissemination efforts, type of clinical problem and clinical tasks addressed by the guideline, guideline source, physician participation in guideline development or

¹⁵ The criteria developed in this project are based on the guidelines for urinary incontinence, acute postoperative pain, and benign prostatic hyperplasia.

¹⁶ Perhaps reflecting growing activity in this area, the AMA recently developed a guide to implementing guidelines at the local, state, and regional levels (AMA 1994).

adoption, form and specificity of guideline recommendations, legal considerations, financial and administrative mechanisms, and strength of the evidence on which the guideline is based (OTA 1994).

There is reason to believe that certain practice guidelines, when introduced with adequate incentives, could be expected to exert some influence on medical practice. Researchers who reviewed the evidence regarding six general methods of changing physician behavior found some indication of success for each, noting that interventions that rely on more than one method appear to be most successful (Greco and Eisenberg 1993). The methods reviewed—education, feedback, participation by physicians in efforts to bring about change, administrative rules, financial incentives, and financial penalties—have all been used in implementing guidelines.

Evaluating the effects of guidelines on practice patterns is complicated by a number of factors, including the fact that the implementation techniques used may play a significant role. Although research results are not yet available, AHCPR has sponsored several studies of the effects on practice of alternate approaches for implementing its guidelines (AHCPR 1994a). Two projects are now under way that will compare the effects of alternate methods of implementing the agency's depression guideline on practice patterns in large group-model HMOs.¹⁷ Two other projects have been sponsored in conjunction with the Centers for Disease Control and Prevention that will assess the effectiveness of an educational approach to implementing the urinary incontinence guideline and public education on the patient guide to that condition. The agency has also issued a request for proposals to evaluate the effects of implementing five of its guidelines in primary care settings (AHCPR 1994a).¹⁸ Two of the three projects that have been funded to date are expected to assess the effects of the guidelines on outcomes as well as practice patterns.

Until research evidence is available, anecdotal reports provide preliminary evidence of these guidelines' effects. Such reports indicate that guidelines sponsored by AHCPR have been successfully adapted and implemented, and some implementing organizations report having documented cost savings and quality improvement (AHCPR 1994b; Vibbert et al. 1994; Horn 1995). Implementing groups report difficulties in some of their efforts to translate guidelines into actionable protocols, however, particularly where guideline recommendations are not sufficiently explicit (AHCPR 1994b).

Broad Effects on Practice Patterns. Determining whether specific guidelines have had any broad effects on practice patterns outside of individual instances of implementation may be hampered by the inability to control for other factors that influence practice and by data limitations. Identification of expected changes in practice and development of criteria by which to determine whether those changes have occurred are necessary steps in this effort. Beyond the criteria for three guidelines being developed by AMRRC, AHCPR has also sponsored criteria development for two other guidelines: cataract in adults and pressure ulcer prevention (AHCPR 1994a). These criteria are to be tested in

¹⁷ The hypertension guideline issued by the National Heart, Lung, and Blood Institute is also being evaluated in this project.

¹⁸ Guidelines eligible for study under this request include urinary incontinence, early HIV infection, sickle cell disease, unstable angina, and depression. The National Institute of Mental Health is jointly sponsoring study of the depression guideline.

conjunction with the Department of Veterans Affairs. The agency will also sponsor development of review criteria for the unstable angina, heart failure, and otitis media guidelines.

Physician Attitudes Toward Guidelines and Reported Use. Physicians' attitudes toward guidelines and their reported use of them provide indicators of the extent to which guidelines are used in making medical decisions, but surveys on these issues must be carefully interpreted. Moreover, due to the rapid change in this field available surveys may quickly become outdated.

Surveys of physicians' attitudes toward and reported use of guidelines provide mixed evidence of guideline use. For example, 60 percent of internists surveyed in December 1991 indicated that guidelines had some influence on their decisionmaking, although only 18 percent reported that their practice had changed during the last year as the result of a guideline (Tunis et al. 1994). Another 1991 survey found that about three-quarters of physicians were aware of practice parameters or clinical guidelines that applied to services or procedures that they commonly performed. Of those physicians, three-quarters said that they used guidelines in the diagnosis or treatment of patients (AMA 1992).

Certain characteristics of physicians have been found to be related to their attitudes toward and reported use of guidelines, and this finding has implications for the ways in which changes in medicine may affect guideline use. The survey of internists found that physicians who practice fee-for-service medicine and those practicing in private, noninstitutional, non-HMO settings have more negative attitudes toward practice guidelines than their counterparts (Tunis et al. 1994). Another survey found significant differences in physician use of guidelines by specialty, employment status, and board certification status (AMA 1992).

There is little evidence to indicate the extent to which the guidelines sponsored by AHCPR have been used by physicians in making treatment decisions; however, anecdotal reports indicate that the length and complexity of the guidelines make them unwieldy and difficult to use in practice (AHCPR 1994b).

OUTSTANDING ISSUES

Application of guidelines has proceeded despite the fact that issues surrounding guideline development remain in some cases unresolved. This section identifies some of the issues that have arisen, and others that have taken on new urgency, relating to the use of guidelines.

Identifying Barriers to Guideline Use

Mixed evidence of use of practice guidelines in medical decisionmaking and their effects on practice raises concerns about potential barriers to use. Barriers to changing medical practice generally have been identified as important obstacles, and incorporating successful approaches to change will undoubtedly be an important factor in guidelines' impact (Eisenberg and Foster 1993; Mittman et al. 1992). Effective strategies for accomplishing change may depend on the behavior to be changed, the

technologies involved, the type of practitioner, and the setting in which the change is to be instituted (Kibbe et al. 1994). In addition, a number of characteristics of the practice environment have been identified that may impair the willingness or capacity of providers and patients to use practice guidelines in making treatment decisions.

Financial incentives and malpractice liability concerns could affect provider compliance with certain practice guidelines, particularly those that define appropriate use of services. To the extent that such guidelines come to represent the accepted standard of care, conformance with those guidelines would be expected to reduce the effects of these barriers. State malpractice initiatives that explicitly recognize certain guidelines are in part an attempt to reduce the perceived need to practice defensive medicine. The shift away from traditional fee-for-service payment for services should also have an effect.

Payment policies or coverage decisions may also inhibit conformance with particular practice guidelines. This barrier would pertain to a practice guideline that recommended treatment involving types of providers or services not covered by insurers. Where such guidelines represent superior interpretations of the science, coverage or payment policies should be modified to facilitate appropriate practice.

Lack of coordination and continuity in treatment across systems of care may pose a barrier to the use of some guidelines. For example, use of a guideline that describes management of a condition necessitating both hospital and ambulatory care may require coordination to enable conformance. The trend toward increased health services integration may help to reduce this barrier.

Finally, characteristics of the guidelines themselves may pose barriers to use. Where potential users do not believe guidelines are valid or usable in terms of length, complexity, and specificity the guidelines will not be widely used. A number of steps could be taken toward reducing these barriers where they exist. One such step would be to demonstrate the integrity of the development process used; another would be to adequately document the evidence basis for recommendations. In addition, the needs of guideline users should be taken into account in determining guideline length, complexity, and format.

Barriers related to the medical decisionmaking environment may be best addressed in the private sector, although publicly sponsored research on strategies for changing medical practice can provide valuable assistance and avert unnecessary duplication of efforts. Where characteristics of the guidelines themselves pose barriers to use, guideline developers in both the public and private sectors will need to make necessary changes in order to increase usage or provide tools to facilitate use of these guidelines.¹⁹

¹⁹ An example of such a tool is HealthQuiz, a computer device that displays questions relevant to health status and risk factors, records patient responses, and uses a preprogrammed algorithm containing practice guideline information to generate patient-specific advice for physicians. The HealthQuiz software program now on the market draws on several national guidelines for assessing risk factors that could interfere with the delivery of anesthesia to presurgical patients. Another software program now being tested is based on the USPSTF guidelines for clinical preventive services.

Facilitating Access to and Awareness of Guidelines

While dissemination alone is insufficient to ensure use of guidelines, it remains a necessary first step. Although diverse dissemination efforts have value, particularly to the extent that they target likely users, these efforts may be inefficient as well as ineffective in reaching other users. The large number of guidelines now available and diverse sources of sponsorship suggest the need for development of a single source for accessing valid and usable guidelines.

The practice guideline indexes and databases that have been developed facilitate access to guidelines, but may be less useful than would be ideal. Such references necessarily list only a subset of available guidelines, in most cases do not include guideline text, and generally provide little or no information about the effectiveness or validity of the guidelines. The cost of the available indexes and the media used may also inhibit access by some potential guideline users.

As in other areas of practice guideline activity, a partnership of efforts between the public and private sectors is needed to promote access to guidelines. No matter how vigorously government entities disseminate and promote guidelines, these efforts will be insufficient to ensure widespread awareness and use. Medical educators, physician organizations, consumer advocates, and others in the private sector are best positioned to promote and support the use of tools to aid informed medical decisionmaking.

Evaluation of Guidelines and Selection Among Alternatives

Development of multiple practice guidelines on a particular topic and the issuance of inconsistent recommendations have both positive and negative implications. The availability of alternative guidelines may reduce the perception that guidelines promote a so-called cookbook approach to medical care, and differences in recommendations reinforce the notion that guidelines do not necessarily equate with a standard of care. On the other hand, conflicting or inconsistent recommendations in alternate guidelines may be problematic to the extent that they undermine credibility or cause confusion among potential guideline users (Eddy 1990).²⁰

Providers may increasingly face incentives to conform with guidelines from the health plans in which they participate, Medicare, their malpractice insurance carriers, and other parties. The likelihood that some of these guidelines will feature conflicting or inconsistent recommendations is high. Where these guidelines are equally valid, differences among them may be of minimal concern, but evaluation of guidelines is necessary to make such determinations.

Assessment of guidelines and comparison among them by potential users is currently inhibited by a number of factors. First, the diversity of guideline sources makes collection of the guidelines available on a specific service or condition difficult. Second, the information needed to evaluate guidelines,

²⁰ OTA (1994) has observed that this may be particularly problematic where guidelines sponsored by different government agencies are inconsistent.

including information on development methods and bases for recommendations, is not readily available in a comparable format. Finally, the time and resources required to adequately assess a guideline may serve as a barrier to evaluation, particularly for individual providers or patients.

These factors suggest the value of undertaking collection, evaluation, and dissemination of practice guidelines on a broad and systematic basis. Systematic evaluation of guidelines could not, of course, completely resolve the issue of conflicting guidelines. But by evaluating relevant factors, such as a guideline's documentation of the evidence basis for recommendations, the ability to make selections among alternative guidelines would be improved.

Putting Guidelines Into Practice: Adaptation and Implementation

A number of issues relate to adaptation of national guidelines for use at the local level, and implementation of those guidelines.

Adaptation. The variety of ways in which guidelines are being modified and applied raise new issues. The value of undertaking these activities at the local level is affirmed by research suggesting that guideline compliance is increased where local providers participate in development or adaptation. At the same time, concerns have been expressed regarding the potential of the adaptation process to introduce inappropriate changes in the guidelines.

Little is known about the adequacy of the processes used to develop or adapt guidelines at the local level, or about how the adaptation process affects guideline validity. Exploration of the processes used at the local level to adapt guidelines is an important area for further study. Research is needed to explore how guidelines are changed when adapted, how important these changes are to the integrity of the guidelines, and what effects these changes have on outcomes. Work begun by AHCPR in this area studying the implementation of its guidelines represents an important first step.

Implementation. Physicians recognize the potential benefits of guidelines and physician organizations are among the leaders in guideline development and dissemination. Beyond the value of guidelines as a reference tool, certain applications may have beneficial effects for physicians as well as potentially on practice, for example, where profiles of practice patterns can be used in place of intrusive case review.

Some have expressed specific concerns about certain applications for guidelines, however, as well as broader concerns about the use of guidelines generally (Kassirer 1993; Parmley 1994). Members of the physician community and their representatives are concerned about guidelines' potential to stifle innovation where compliance with them is enforced. They also stress the need to proceed carefully with untested applications for guidelines, including use in determining malpractice liability. Physicians have further expressed concern about possible effects of guidelines on clinical autonomy, health care costs, and satisfaction with clinical practice (Tunis et al. 1994). The Commission has also made the point that specific guidelines should not be used for regulatory purposes until proven valid and reliable (PPRC 1992). Involving physicians and other providers in the guideline process from

development to implementation is critical to success, not only to garner support for these efforts, but also to provide a forum for these concerns to be raised and addressed.

IMPLICATIONS FOR FEDERAL GOVERNMENT ROLE

Increased private-sector development of guidelines does not offset the need for a continued federal role in guideline development. AHCPR's efforts in this area have not only provided a resource for patients and providers, but may also be instrumental in supporting and improving guideline development at other levels.

Efforts to document some of the effects of AHCPR-sponsored guidelines on practice and outcomes are under way, but other effects of the agency's work, although potentially quite large, could be long-term and difficult to discern. For example, its efforts are likely to be a factor in spurring the rapid growth in private-sector guideline activities. Another benefit that could be attributed to AHCPR's work is the drawing of attention to significant deficits in the scientific research base for health care. Additionally, the development of AHCPR-sponsored guidelines may exert a beneficial influence on the quality of guidelines produced elsewhere. This would be true if, as anecdotally reported, the development methodology used at AHCPR has been recognized as a process benchmark.

Because nationally produced guidelines are adapted and modified at the local level, some have suggested that the agency focus its efforts primarily on facilitating local adaptation; however, there are several considerations that support its continued sponsorship of guideline development. First, the agency's work in guideline development provides a basis of expertise that enriches and endows with legitimacy other guideline-related efforts undertaken by the agency. Further, there may be specific types of guidelines that are most appropriately developed publicly at the national level, or for which AHCPR has a comparative advantage in development. These types of guidelines are considered below.

The medical practice environment has evolved rapidly in recent years, as has the policy context in which practice guideline efforts are evaluated. An increased understanding of the importance of systematic guideline implementation coincides with the movement toward greater organization and integration of care, which provides greater opportunities to expand guideline use. Certain changes in guideline development at AHCPR would be responsive to those contextual changes and offer potential to increase the value of those guidelines produced.

Focusing Guideline Topic Selection

Choices must be made about which guidelines should be developed with federal support. Increased guideline development in the private sector suggests the value of focusing development on topics not likely to be adequately addressed by private sector developers, while increased knowledge about guideline application suggests that focus on topics of interest to organized health systems would yield the greatest opportunity for affecting practice.

Because these two criteria relate to two divergent goals, any one topic under consideration will not always satisfy each, but both are important and should be considered in topic selection. The goal of the first criterion would be to ensure that guidelines that offer the potential to improve care are available where adequate ones would otherwise not exist, while the goal of the second criterion would be to increase the probability that guidelines will be implemented.

Increased development of guidelines within the private sector permits an enhanced focus at the public level on sponsoring the development of guidelines for conditions or services unlikely to be adequately addressed by private-sector organizations. This would encompass those topics that require a multidisciplinary approach to guideline development unlikely to be achieved in another forum.²¹ This criterion would also encompass guidelines on topics that no other organization has sufficient incentive to address, whether because the condition or service has no clear and empowered constituency or because adequately addressing the topic would require prohibitively high costs in comparison with the benefits expected to accrue to any one group. Public guideline development may also be warranted where vested interests may cause guidelines developed in the private sector to be suspected of bias.

Recognition that the potential for guidelines to influence medical practice is greater where they are actively implemented suggests the appropriateness of taking the interests of implementing groups into account. Selecting topics for development that are of interest to implementing groups would be one way to increase the probability of guidelines affecting practice.²² The probability of guideline implementation might further be increased by creating a greater role for groups expected to implement a particular guideline in the development process.

Steps to Increase the Utility of Guidelines

Changes to federal practice guideline activities should reflect experience with development and use of guidelines and growth in what is known about them. AHCPR is now in the process of undertaking a review of its efforts in practice guidelines, with an eye to building on its successes and making adjustments as appropriate. The agency is well positioned to take a number of steps that could facilitate the use of the guidelines it issues as well as those developed by others.

Steps to Increase the Use of AHCPR-Sponsored Guidelines. Practice guidelines have the potential to affect outcomes only where they are used in medical decisionmaking; therefore, guideline usability is of considerable importance. Because there are multiple potential audiences for guidelines, including physicians and other providers, patients, and various organizations, all of whom may have

²¹ For example, the expert panel that developed the AHCPR-sponsored guideline on acute low back problems included representatives of chiropractic medicine, orthopedic surgery, internal medicine, and physical therapy, among others. It would arguably be difficult for these groups to have been convened for this purpose by a private-sector group, yet the multidisciplinary approach seems essential to address this condition adequately.

²² Because of expectations that the trend of increased Medicare beneficiary participation in HMOs will continue, increased consideration of these plans' interests in guidelines would be consistent with AHCPR's mandate to consider the needs of the Medicare program in developing guidelines.

different ideas of what makes a guideline usable, it may be necessary to adopt a number of approaches to facilitate guideline use.

Because the guidelines produced by AHCPR take a comprehensive approach, and because of the importance of documenting evidence, attempts to make the guidelines themselves more user-friendly in terms of length and complexity may be insufficient to facilitate widespread use of the guidelines in their current formats. Enhanced focus on the development of tools to facilitate provider and patient use of the guidelines, and on the development of some of the products derived from guidelines that enable them to be put into practice by organizations, such as review criteria, could further both the use of the guidelines and their potential to affect practice.

Progress has been made in the development of tools to assist providers in using guidelines to make medical decisions. Among these are a variety of computer applications that process information and provide suggestions regarding how to comply with existing guidelines based on data entered by providers or patients. Such tools may be particularly valuable in enabling the use of complex and lengthy guidelines that require consideration of multiple variables for decisionmaking. The complexity and length of AHCPR-sponsored guidelines suggest the value of developing such tools.

Application of the AHCPR-sponsored guidelines could also be facilitated by increasing the development of review criteria and other products derived from guidelines. There would be merit in producing review criteria simultaneously with guideline development, either by the guideline development panel or by a group working closely with it that possesses the methodological skills required. Simultaneous development of review criteria would enable guideline panels to recognize and make corrections to areas where their recommendations are unintentionally not specific enough to guide practice behavior.

Facilitating the Development of Valid Guidelines at the Local Level. Local guideline development and adaptation of national guidelines at the local level fosters provider commitment to the guidelines produced and enables integration of guidelines into local processes of care. AHCPR could play a significant role in facilitating the creation of valid guidelines at the local level by increasing its efforts related to the methodology used in development and the provision of a high-quality evidence basis for recommendations.

First, efforts to define and disseminate rigorous methods for guideline development should have high priority. Research that compares alternate approaches to guideline development and isolates the factors that ensure valid guidelines is an integral part of this. The agency has sponsored some research in this area, and dissemination of its research findings, when available, will provide valuable insight.

Second, the evidence basis on which valid guideline recommendations may be built deserves further attention and support. Part of the value of AHCPR-sponsored guidelines stems from the documentation and synthesis of evidence that they provide for those developing or adapting guidelines at the local level. These efforts may both reduce unnecessary duplication of effort and decrease the potential for unwarranted inconsistencies in guideline recommendations.

AHCPR could support local guideline development by issuing and regularly updating comprehensive summaries and tables describing the scientific evidence available on a given topic or condition. By doing this the agency could provide a valuable reference for local guideline development and could also demonstrate where the evidence is insufficient to support guideline recommendations. Such an approach could be adopted for some conditions or services in place of guideline development, possibly permitting attention to a greater number of conditions or services for the same amount of resources.

A closer linkage between establishment of the federal agenda for clinical research and the guideline development process could result in policy-relevant research of the greatest value and, ultimately, in better guidelines. The process of developing a guideline often reveals the inadequacy of the scientific research base on which medical decisionmaking is predicated. Guideline development provides an opportunity to draw attention to that dearth of information and potentially address it through targeted research.²³ Conduct of this research could result in improvements in practice guidelines and a stronger scientific rationale for practice decisions.

This indirect benefit of guideline development ideally could be more systematically cultivated by devising a method to tie more closely the guideline development process and definition of the clinical research agenda. Creating a formal process to coordinate these two efforts would undoubtedly be challenging, however, in part because of the numerous agencies involved in aspects of such research. One possible mechanism would have the guideline development panels record a detailed inventory of research needs as those needs are identified during the guideline development process. Items included in this inventory could be ranked in order of perceived importance by the guideline development panel, reviewed by AHCPR and others as needed, and distributed to other agencies for use as a reference. To offer maximum benefit, such a coordinating effort would become part of the development process for AHCPR-sponsored guidelines as well as for those produced elsewhere.

Other action may facilitate adaptation of nationally produced guidelines. In developing guidelines at the national level, key recommendations may need to be stressed where they can be identified to reduce the incidence of inappropriate guideline modification.

Facilitating Use of Valid and Useful Guidelines. A number of efforts would support the application and use of valid guidelines that are developed in both the public and private sectors. A strong research infrastructure is one necessary element for which public leadership is critical, while a public and private sector partnership would provide a solid basis for an entity that would evaluate and disseminate valid and useful guidelines.

Systematic Evaluation and Dissemination. The Commission, the IOM, and others have previously called for the development of an entity to evaluate and widely disseminate valid guidelines (PPRC 1992; IOM 1992, 1995). The case for developing such an entity is strengthened by the newly

²³ OTA (1994) also noted that an important contribution of guidelines is the identification of outstanding clinically relevant questions for research, and suggested that such recommendations could be highlighted to a greater extent.

prominent issues of multiple guidelines on various topics, dissimilar recommendations, and growing application of guidelines. In addition, progress has been made in the development and testing of criteria for guideline assessment that could be built upon.

Evaluation of guidelines at the national level and dissemination of evaluation results would increase the ability of guideline users to make informed selections among options and could do much to increase widespread use of the most valid and useful guidelines. Having established its credibility, AHCPR is well positioned to coordinate a partnership of public- and private-sector entities to participate in this effort. A number of significant challenges are apparent—including that of determining a role for the agency in the evaluation process that would be acceptable to all parties—but the opportunity for significant benefits justifies addressing these challenges.

Research Infrastructure. A strong research infrastructure is required to support and improve future efforts to develop and use practice guidelines. Areas in which additional research efforts are needed have been highlighted in this chapter. Among these are research on guideline development methodology, the effects of guidelines on outcomes, barriers to changing medical practice and use of guidelines, tools to facilitate the use of guidelines by providers, and patient decisionmaking and use of decisionmaking aids. AHCPR has sponsored projects in a number of these areas.

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USE OF MEDICARE FEE SCHEDULE POLICIES BY OTHER PAYERS

Non-Medicare payers have adopted some of Medicare's reforms in physician payment policies in recent years. This trend continued in 1994, with even more Medicaid programs and private plans basing their payments on elements of the Medicare Fee Schedule, particularly Medicare's relative value scale (RVS). Almost 40 percent of Medicaid programs have adopted Medicare's RVS to pay physicians, while more than one-quarter of the managed-care plans surveyed for the Commission by Mathematica Policy Research (MPR) and the Medical College of Virginia (MCV) reported using a resource-based RVS.

Many publicly funded programs have adopted the RVS (AMA 1994). In Washington State and West Virginia, for example, the Medicaid, state workers' compensation, and state employees' health programs all use the RVS. Four other state workers' compensation programs have adopted the RVS, and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) uses the RVS as a fee screen to justify reductions in its payment rates toward Medicare's payment levels.

By using Medicare's RVS, payers hope to reduce perceived inequities in their historical charge-based payment systems by shifting payment from tests and procedures toward evaluation and management services. Use of Medicare's RVS also allows payers to easily refine their fee schedules by applying the Health Care Financing Administration's (HCFA) annual revisions to the RVS, as well as any other relevant policy changes. Many payers, however, do not implement all of HCFA's changes to the fee schedule.

While many payers have adopted Medicare Fee Schedule policies, the Commission has found that some Medicaid programs and managed-care plans have adjusted Medicare payment policies to meet budgetary goals or to ensure patient access to specific services. Payers have changed the relativity of payments or used different conversion factors. To secure reasonable access to obstetric services, for example, several Medicaid programs have increased the relative values for these services or pay separately for the individual obstetric services that Medicare bundles under one payment rate.

This appendix describes current trends in other payers' use of the fee schedule. The first section briefly reviews the key elements of the fee schedule that are relevant to other payers. The second analyzes use of the fee schedule by Medicaid programs nationwide. The final section reviews private-sector use of the fee schedule in both managed-care and fee-for-service plans. The analysis of Medicaid programs' use of the fee schedule is based on the Commission's survey of all state programs (50 states plus the District of Columbia). The private-sector information, however, is from a more

limited set of plans contacted directly by Commission staff or included in the MPR/MCV survey.¹ These plans are not necessarily representative, although the findings are likely to be indicative of the practices of a broader set of plans.

ELEMENTS OF THE MEDICARE FEE SCHEDULE

Three basic elements of the Medicare Fee Schedule, as currently implemented, are most relevant to other payers reforming their physician payment policies:

- the relative value scale composed of relative values representing the physician work, practice expenses, and professional liability expenses required to provide each service defined by Current Procedural Terminology (CPT) codes;
- conversion factors, which Medicare uses to convert relative value units (RVUs) to dollar amounts in three categories, surgical services, primary care services, and all other services; and
- adjustment for geographic variation across the three components of the RVS to recognize differences in input prices among the Medicare payment areas.

Another Medicare payment policy provides bonus payments for services provided in Health Professional Shortage Areas (HPSAs), which are intended to help increase access to care in these areas.²

Adaptations of Fee Schedule Policies When Implemented by Other Payers

In analyzing RVS use by other payers, it is necessary to distinguish between relative values as reflected in the RVS, relative payments as determined by the combination of the RVS and conversion factors, and payment levels as determined by the conversion factors. As initially conceived, payments under the fee schedule were expected to reflect relative resource use as revealed by the RVS. As a result of the continued application of separate updates to the conversion factors for the three groups of services, relative payments are affected by the differences in the conversion factors and not just by the differences in resources used. The conversion factors not only determine absolute payment levels by converting RVUs to dollars, but they change relative payments across the three groups to which they apply.³

¹ The MPR/MCV survey intentionally sampled from larger metropolitan statistical areas and from larger plans in order to understand the policies of plans with high enrollments. The findings are not weighted to show this, but rather describe large plans in more densely populated areas (Gold et al. 1995). See Chapter 10 for more detail on the survey design and findings.

² See Chapter 2 for more detailed discussion of fee schedule policies.

³ See Chapter 3 for discussion of the Commission's recommendation to adopt a single conversion factor.

Similarly, adjustment of payments for local price variation is different from adjusting payments to achieve other policy goals, such as the use of HPSA bonus payments. The difficult issue concerning geographic adjustment for price variation is in determining the actual areas that should serve as the basis for such adjustment. Medicare has continued to use its own defined payment areas, which are heterogeneous in size and population. Because other payers may not see much reason to use the Medicare areas to adjust payments and may not be able to easily develop an alternative set, they may not geographically adjust payments to reflect price variation. Bonus payments in rural areas or similar adjustments may be more appropriately interpreted as mirroring Medicare's HPSA bonus policy.

Several other features of the fee schedule and HCFA's maintenance of it complicate its use by other payers. As described in Chapter 2, HCFA can only achieve budget neutrality or savings when implementing policy changes by reducing relative values; it does not have the authority to reduce the conversion factors for this purpose. As a result, all the values within the RVS have changed systematically from year to year. If another payer that adopted the fee schedule in 1993 is attempting to use values for new codes from the 1995 fee schedule, that payer must adjust 1995 relative values to 1993 levels to make them comparable to the other codes.

Another issue is the applicability of the fee schedule to other populations. The relative values in the fee schedule are meant to reflect the value of the service when provided to the typical patient. Within this framework, HCFA initially focused on developing and refining values for services relevant to an elderly population and did not emphasize refinement of values for codes for such things as pediatric services. More recently, HCFA has been trying to make the RVS relevant to a broader population.

MEDICAID PROGRAMS' ADOPTION OF MEDICARE FEE SCHEDULE POLICIES

The number of Medicaid programs that have adopted Medicare Fee Schedule policies continues to grow. As of January 1995, 19 of the 51 Medicaid programs nationwide reported using Medicare's RVS and 3 more states were planning to implement it during this year (Table A-1). In February 1994, only 12 Medicaid programs had adopted the RVS and 8 others were planning to adopt it in the near future. Most of the remaining Medicaid programs base payment on historical charges or other fee schedules, such as the McGraw-Hill and California relative value scales. In general, these states are not planning to reform their fee-for-service physician payment schedules.

The Delaware, Georgia, and Massachusetts Medicaid programs are phasing in the use of the RVS, a process that Washington State completed in the past year. This approach mirrors Medicare's five-year transition period, which was intended to allow physicians time to adjust to the new payment system and maintain sufficient physician participation levels and patient access to care.

Many states do not refine their payment schedules annually, unlike Medicare. States are under extreme pressure to contain their Medicaid budgets and ensure beneficiary access. As a result, their methods of adjusting the Medicare Fee Schedule may reflect the need to minimize administrative

Table A-1. Use of the Medicare Relative Value Scale by State Medicaid Programs, 1995

Implemented (date)	Planning to Implement (date)	Actively Exploring Application
Arizona ^a (1992)	Alaska (July 1995)	Connecticut
Delaware ^{b, c} (1994)	North Dakota (July 1995)	Idaho
Florida (1995)	Virginia (July 1995)	Minnesota
Georgia ^b (1992)		
Indiana (1994)		
Kentucky ^d (1994)		
Massachusetts ^b (1992)		
Michigan (1991)		
Mississippi (1992)		
North Carolina (1993)		
Ohio (1994)		
Oklahoma (1992)		
Oregon (1993)		
Rhode Island (1993)		
South Carolina (1993)		
Texas (1992)		
Utah (1994)		
Washington (1993)		
West Virginia (1994)		

SOURCE: Physician Payment Review Commission survey of the Medicaid programs and the District of Columbia conducted December 1994 through January 1995. All programs responded to the survey.

^a Arizona uses the relative value scale (RVS) only for the 10 to 15 percent of Medicaid beneficiaries not in capitated arrangements.

^b Delaware, Georgia, and Massachusetts are phasing in their RVS-based systems; their fee schedules are still partly based on historical charges.

^c Delaware has implemented an RVS-based system but is still waiting for approval from HCFA.

^d Kentucky has implemented an RVS-based system but its continuation is subject to a court ruling.

NOTES: Louisiana uses an historical charge-based system except for new codes added since 1993, which are based on the RVS.

Maine uses a resource-based RVS developed by Hsiao and colleagues at Harvard University.

costs, controversy, or health care expenditures, rather than an effort to keep the relativity of payments intact. Almost one-half of Medicaid programs using an RVS-based system have not used HCFA's refined RVS each year. These states used a previous year's RVS because of time and budgetary constraints or concerns about certain refinements to the RVS by HCFA. Other states used inflation indexes or did not refine values at all this year.

Relative Relationships Among Payment Rates

The 19 Medicaid programs that have replaced their fee schedules with Medicare's use the RVS and their own conversion factors or apply a flat percentage to HCFA's payment rates. The five states using this second approach find it easier to administer because it does not require establishing state-specific conversion factors.

Medicaid programs adopting Medicare Fee Schedule policies use different strategies for adjusting the relative relationships among payment rates for services. Their approaches have been generally guided by the states' desire to provide payment rates adequate to ensure beneficiary access while maintaining total spending at the level that would have existed if no policy change had been made (commonly referred to as budget neutrality).

About one-third of the programs using the RVS have kept three conversion factors as defined by Medicare's categories of surgical services, primary care services, and other nonsurgical services. Of the programs using three conversion factors, however, the relationship across the conversion factors sometimes varies. One state, for example, adjusted the three conversion factors by different amounts, ranging from 2 percent to 10 percent.⁴ Another program paid for physicians' services by applying a flat percentage to Medicare's rates, emulating Medicare's policies, except when this would require raising rates above a state-specified level.⁵

Other states using the RVS have adopted conversion factors that change the relative relationships of payments compared to Medicare by applying a single conversion factor. Approximately one-third of Medicaid programs use one conversion factor across the RVS, a decision that maintains the integrity of the RVS. Most programs using one conversion factor still use relative values from previous years for all but new codes. The relativity of payments within the RVS could be skewed if values for new codes are not adjusted to reflect changes made to maintain budget neutrality when HCFA assigned values to new and revised codes.

The final third of Medicaid programs have made targeted rate changes to certain categories of services to address specific policy goals, causing shifts in the relative relationships of services compared to Medicare's three conversion factors. For example, some have created separate conversion factors for services such as primary care, obstetrics, pediatrics, anesthesia, or laboratory procedures. One state uses seven conversion factors, the highest number of any Medicaid programs. In the case of obstetric and pediatric services, many states have maintained higher conversion factors or established bonuses or hold-harmless regulations, which affect the relativity of payments.

Payment Level Variation

Most states have altered the level of conversion factors relative to Medicare's by applying lower or higher factors to the RVS or by paying for physicians' services using a flat percentage of HCFA's annual payment rates. Medicaid rates are generally lower than Medicare's, with a few exceptions, as

⁴ This state paid for surgical services at a rate of \$3.74, or 10.6 percent, higher than Medicare; primary care at \$1.83, or 5.4 percent, higher; and other nonsurgical services at \$0.70, or 2.1 percent, higher, thereby changing the ratio of the conversion factors. Only 10 percent to 15 percent of this state's Medicaid beneficiaries, however, are in fee-for-service medicine.

⁵ This Medicaid program generally bases its rates on 70 percent of Medicare's. Because of budget regulations, however, if 70 percent of Medicare's payment rate for a service would require more than a 10 percent increase, the rate is increased only by a maximum of 10 percent for any particular procedure in a given year.

past Commission reports have indicated (PPRC 1991; 1994). Because states have adopted different numbers of conversion factors and these change over time, it is hard to compare payment levels directly. In 1993, Medicaid payments for physicians' services were on average about 73 percent of Medicare's, but this ratio varied by state and type of service.

Implementation of the Relative Value Scale

When implementing the Medicare RVS, most Medicaid programs noted that HCFA's relative values for pediatric and obstetric codes were too low, which could hinder beneficiary access. As discussed previously, many states have instituted higher conversion factors, hold-harmless regulations, or flat-rate bonuses for pediatric and obstetric services in order to increase relative payments for those services. Other Medicaid programs have developed their own relative values through committees of health professionals or external consultants. Because most Medicare beneficiaries are elderly, HCFA had not focused on unique circumstances of the broader populations Medicaid programs serve. Just recently HCFA has started to refine certain RVUs to meet other payers' needs. The Medicaid program administrators using their own conversion factors have expressed disappointment with HCFA's recent improvements to the pediatric and obstetric RVUs.

Medicaid program administrators using the RVS will have to account for RVU changes from HCFA's five-year review of relative work values in 1997 and the implementation of resource-based practice expense values in 1998. When administrators learned of these upcoming changes during the Commission's survey, they expressed hope that modifications to the RVS would make the scale more accurate and increase the values of primary care relative to specialty services.

Use of Medicare's Geographic Adjustment Policies

None of the programs has adopted Medicare's policy of geographic adjustment to differentiate payment rates across areas of the state. Some programs have used one of Medicare's adjustment rates to modify their conversion factors statewide. In order to promote access to services, Utah's Medicaid program has applied a 12 percent bonus to its rural physicians' payment rates, similar to the HPSA bonus payment policy.

Medicaid Programs Not Adopting the Medicare Fee Schedule

There are a number of reasons that certain states have not utilized the Medicare Fee Schedule. Several Medicaid administrators mentioned their states' intentions to develop capitated managed-care arrangements as a reason for neither reforming nor refining their fee-for-service payment schedules this year. If Medicaid beneficiaries are moved into managed-care plans, fee-for-service medicine will be a smaller portion of Medicaid expenditures and the importance of a fee schedule, resource-based or not, will diminish. Since the Commission's 1994 annual report, Missouri has dropped plans to implement the RVS. Its pending waiver under Section 1115 of the Social Security Act would put all beneficiaries into capitated managed-care plans, removing the state's need for fee-for-service

payment. Several other states with Medicaid demonstration waivers already have large numbers of their Medicaid beneficiaries in capitated plans.⁶

Five state Medicaid programs have encountered specific problems in their efforts to adopt Medicare Fee Schedule policies. Minnesota does not have the appropriate enabling legislation and has given higher priority to other issues. Connecticut continues to study the possible use of Medicare's RVS but faces time and budget constraints. New York State had explored adopting Medicare's RVS, then decided to use an earlier version of the relative value scale developed by William Hsaio and his colleagues at Harvard University, but has now been delayed by an ongoing debate between the Reimbursement Reform Committee and the Medical Society of the State of New York. Leadership changes in Idaho have slowed implementation, while Kentucky's adoption of the RVS has been threatened by a court challenge.

A few Medicaid programs reported using the RVS in ways not originally intended. Some use the RVS as a charge screen (for maximum allowable charge amounts), as a guideline, or for new codes only. Louisiana's program, for example, has drawn on the RVS since 1993 for new procedures or when rates were disputed by physicians.

PRIVATE-SECTOR ADOPTION OF MEDICARE FEE SCHEDULE POLICIES

The use of Medicare's RVS in the private sector has occurred predominantly in managed-care plans. Many Blue Cross Blue Shield (BCBS) plans are also using the RVS. It is relatively easy for managed-care companies and BCBS plans to adopt Medicare's RVS because they have contractual arrangements with physicians that allow them to enforce a fee schedule. These insurers often pay discounted fee-for-service rates and have agreements with physicians to not charge patients the difference between these discounted rates and their regular charges, a practice known as balance billing.

Trends in Use of Medicare Fee Schedule Policies

Many private plans, particularly for their independent practice association (IPA) and preferred provider organization (PPO) products, use Medicare's RVS because they see it as a rational approach to establishing the relative relationships among payment rates for different services. The MPR/MCV managed-care plan survey confirms this industrywide trend (Gold et al. 1995). Some 30 plans in the sample of 108 reported some use of a resource-based RVS, with about half of those using Medicare's RVS mostly intact. It was used largely in network and IPA-model health maintenance organizations (HMOs), to a somewhat lesser extent in PPOs, and the least in group- and staff-model HMOs. Supporting these findings is the Foundation of the American Managed Care and Review Association survey of managed-care executives, which showed that almost two-fifths of responding HMOs (of all

⁶ See Chapter 8 for more detail about Medicaid demonstration waivers under the Social Security Act.

types) were using Medicare's RVS, whereas fewer than one-fifth of PPOs had adopted it (AMCRA 1994).⁷

The Blue Cross Blue Shield Association (BCBSA) has also noted a definite increase in the adoption of the RVS as a basis for physician payment among BCBS plans since 1992. In its 1994 survey, BCBSA found that about half of its members were using the RVS to pay some of their physicians for at least one of their products.

Few systematic data are available concerning the use of Medicare Fee Schedule policies by traditional fee-for-service insurers, making it difficult to assess how broadly this is occurring. The Commission will continue to monitor developments in this area. Initial information seems to show, however, that some plans are using payment schedules based on the RVS when there are utilization and balance billing restrictions imposed on physicians. Based on their survey of private plans, McCormack and Burge (1994) agree with the conclusion that adoption of the RVS in the private sector occurs predominantly in managed-care products and is least likely in traditional fee-for-service products.

Reasons Private Plans Use Medicare Payment Policies

Some health plans have chosen to adopt the RVS in an attempt to control the overall growth of expenditures. This is often done by setting conversion factors to achieve savings in the first year of implementation. Of the managed-care plans surveyed, 39 percent set conversion factors to decrease total payments in the first year of implementation (Gold et al. 1995). For all plans, the RVS was also seen to offer longer-term control over payment rates, because rates were no longer based on what physicians charged.

Although some private plans do not implement the RVS in its entirety, they have used the RVS for certain categories of services to identify overvalued or undervalued services or for new or revised CPT codes. Once outlier rates are identified, plans generally adjust rates to bring their payments to a certain percentage of Medicare's rates.

Health plans use Medicare's RVS for purposes other than fee-for-service payment. The RVS can be used in practice profiling to research and identify variations in service provision among providers. By using claims data to compare total RVUs associated with the care furnished by different physicians, plans can detect outlier physicians and networks or identify areas in which utilization review could be enhanced or benefit packages improved. Some private insurers have used Medicare's RVS to develop capitation rates. When comparing a physician group's estimated capitation rates with estimates based on HCFA's rates for a group of individual services, the soundness of the payments can be judged.

⁷ These findings could be overestimating or underestimating the actual use of the RVS by managed-care plans, as the response rate was only about 45 percent.

Relative Relationships of Payment Rates

Managed-care plans varied in the number of conversion factors they used when implementing payment systems based on the RVS. The MPR/MCV survey showed that no plans using the RVS used three conversion factors as Medicare does. In fact, 30 percent used more than three conversion factors, 13 percent used two, and 47 percent employed one conversion factor to determine annual rates. Plans distort the relative relationships among payment rates compared to Medicare's when not using Medicare's conversion factors, but using only one conversion factor keeps relative payments consistent with the RVS.

Just as many Medicaid programs adjust rates for certain services, so do many managed-care plans. Those using a resource-based RVS tend to make modifications to categories of services such as obstetrics (63 percent), pediatric evaluation and management services (50 percent), and pediatric surgical services (37 percent) (Gold et al. 1995).

Payment Level Variation

Gold and her colleagues showed that a gap exists between managed-care plans' rates relative to Medicare's, as most of the managed-care plans using a resource-based RVS system used conversion factors higher than Medicare's in setting their 1994 payments.⁸ More than one-third used factors that were at least \$15 higher, though only 8 percent of those were \$30 or more above the Medicare conversion factors.⁹ Some 20 percent used conversion factors that were about the same as Medicare's, and the rest used factors that were \$1 to \$14 higher than Medicare's.

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⁸ See Chapter 4 for more discussion on the gap between private payers' and Medicare's payment rates.

⁹ Managed-care plans in the survey were asked to compare their conversion factors to Medicare's conversion factor of about \$33.

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APPROACHES TO RISK ADJUSTMENT: AN UPDATE

Effective risk adjustment of payments to health plans is important for both Medicare and the private health insurance system. Medicare's method of paying health maintenance organizations has been criticized for its inability to adjust payments adequately for health status. Better risk adjustment is needed to improve the accuracy of capitation payments made on behalf of Medicare beneficiaries, an important step even if other changes are made to the Medicare risk program (see Chapter 5).

Risk adjustment is also an important component of insurance reform for the private health system. In the absence of any adjustment to premiums for the health status of enrollees, competing health plans have an incentive either to select less risky groups and individuals or to price coverage based on an actuarial assessment of expected costs. Otherwise, those plans that attract enrollees with high needs for health services would be penalized. Under the constraints imposed by some form of community rating or prohibitions on the exclusion of preexisting conditions, incentives to avoid enrolling consumers and groups with high expected costs increase (see Chapter 9).

Last year the Commission included in its annual report extensive background material on risk adjustment of payment to health plans. It also made recommendations to the Congress on the need for a mechanism to ensure that plans are fairly compensated for the relative health risk of their enrollees, on how risk adjusters might be designed and implemented, and on priorities for further research. A serious concern is that available risk adjusters may not sufficiently capture variation in plans' costs that results from differences in health needs of enrollees. Research results reported in the past year have tried to address this concern.

This appendix provides a brief update on these research results. Among the projects highlighted is one funded by the Commission and completed in November 1994 by researchers at the Park Nicollet Medical Foundation and its subcontractor, Johns Hopkins University. The project studied and compared the predictive accuracy and administrative feasibility, for risk-adjustment purposes, of alternative measures of health status.¹

PAST COMMISSION ANALYSIS AND RECOMMENDATIONS ON RISK ADJUSTMENT

The Commission first took up risk adjustment in its 1993 annual report with a brief literature review and a general recommendation that the federal government support development of improved risk adjusters. In 1994, the Commission included in its annual report a more extensive

¹ Jinnet Fowles of the Park Nicollet Medical Foundation was the principal investigator on the project; Jonathan Weiner of the Johns Hopkins University and David Knutson of the Park Nicollet Medical Foundation were co-investigators.

review of research literature and ongoing experiments and developed a set of recommendations on how risk adjustment and risk sharing might be incorporated in health system reform. It recommended that prospective risk adjusters that predict differences in utilization should be built into systems for paying health plans and that they should begin with those such as age and sex, for which data are most readily available. The Commission stated further that additional adjusters, such as health status, are needed and should be incorporated as better data become available and research shows them to be effective.²

ONGOING RESEARCH ON RISK ADJUSTMENT

The research funded by the Commission was designed to add to knowledge of alternative risk adjusters, especially those measuring health status. The Park Nicollet project was selected in part for the availability of a unique database that includes both self-reported measures of health status and chronic health conditions and claims-based measures of morbidity, using the ambulatory care group (ACG) system.³ This database allowed tests of the predictive accuracy of different risk adjusters at both the individual and the group level. The database also included two self-selected subgroups, allowing a test of predictive accuracy for “real” groups. Another important component of the project was an assessment of the administrative feasibility of these approaches, including ease of administration, affordability, acceptability, absence of bias, resistance to gaming, ability to be audited, timeliness, and ease of privacy protection.

This Commission-sponsored project concluded that claims-based and self-reported measures of health status fare about equally well as risk adjusters in tests of predictive accuracy at both individual and group levels. From the perspective of administrative feasibility, both have different strengths and weaknesses (Table B-1). Claims-based measures of health status depend heavily on the availability of data systems that include an adequate history of diagnosis codes. Survey-based measures incur the costs of surveying plan participants but may be feasible where claims data are not in place.

Other research within the past two years has assessed the accuracy and feasibility of risk adjusters based on claims, chronic conditions, and self-reported health status with similar results. After an update on several ongoing experiments in risk adjustment, the remainder of this section briefly reviews some specific results of both the Commission-sponsored project and other research projects.

Work continues on several risk-adjustment experiments by states or private groups, most of which were described in last year’s report. The New York State risk-sharing pools, implemented in 1993,

² See Chapter 8 of the Commission’s *Annual Report to Congress 1994* for a full discussion of these recommendations, which also called for use of reinsurance or partial capitation. That chapter also provides background on the need for risk adjustment and the state of the art in developing risk adjusters (PPRC 1994).

³ In some cases, the analysis used ambulatory diagnostic groups, a variant of ACGs. More detail on the methods and databases used for this project, as well as complete results, are in *A Comparison of Alternative Approaches to Risk Measurement* (Park Nicollet 1994).

Table B-1. Summary of the Performance of Alternative Risk Adjusters in the Park Nicollet Study

Performance	Risk Measure			
	Demographics	SF-36 ^a	Chronic Conditions	Ambulatory Diagnostic Groups
Predictive Performance				
Prospective individual-level performance	R ² = 0.058	R ² = 0.111	R ² = 0.111	R ² = 0.124
Retrospective individual-level performance	R ² = 0.049	R ² = 0.117	R ² = 0.144	R ² = 0.433
Group-level performance	good for random, poor for skewed	good for all groups tested	good for all groups tested	good for all groups tested
Administrative Feasibility				
Ease of data collection				
Start-up	fair	fair	fair	poor
Ongoing	good	fair	fair	fair
Cost of data collection				
Start-up	fair	fair ^b	fair ^b	poor
Ongoing	good	fair ^b	fair ^b	fair
Acceptability	good	fair	good	good/fair
Resistance to bias	fair	poor/fair	poor	poor/fair
Resistance to gaming	good	unknown	unknown	fair
Ability to audit	good	poor	fair	fair

SOURCE: Park Nicollet Medical Foundation 1994.

^a SF-36 is a 36-question survey of perceived and functional health status.

^b Cost of data collection for survey-based measures is high (i.e., poor) if the survey is conducted on 100 percent of the population.

NOTE: Adjusted R² is used as the measure of predictive performance at the individual level. Because only "between-person" variability can be explained by prospective risk adjusters, the maximum R² for prospective individual-level performance is 0.273.

continue in operation, although payouts under the specified medical condition pool have been delayed by a lawsuit that has challenged portions of the law under the Employee Retirement Income Security Act of 1974. In 1995, Washington State is scheduled to put in place a system that includes a risk-adjustment pool into which all plans pay. A state agency will use plan data to make payments from the pool, probably based on some combination of demographic and claims-based health status measures (Madden et al. 1994). Minnesota is also working on a risk-adjustment system that it hopes to implement as part of its health reform in 1997. Washington's and Minnesota's overall reform plans face reconsideration in 1995 by their legislatures, however, and so plans or schedules could change.

Two other groups are actively working to design risk-adjustment systems. The Bay Area Business Group on Health is using its system initially to help compare prices across companies and evaluate

HMO bids in group purchasing negotiations. In the future, it may risk-adjust employee contributions to encourage price-conscious employee choice among plans (Powers 1994). The Health Insurance Plan of California (HIPC) is testing a system for possible implementation in 1996. It intends to use a demographic adjustment for sex and family size (age rating of premiums is allowed in the HIPC) and an adjustment for diagnosis mix based on marker diagnoses (Ramey 1994).

Claims-Based Measures of Health Status

Two major competing systems have been proposed to measure health status from claims. The ACG system measures a population's illness burden based on diagnoses documented by providers in ambulatory settings, while the diagnostic cost group (DCG) system focuses only on conditions treated on an inpatient basis. Both are being refined and tested in several research projects.

The Park Nicollet project concluded that a claims-based measure would be the best available way to adjust for health status provided that available data systems capture at least a nine-month history of encounter-level diagnostic codes (ICD-9 codes). A version of ACGs, combined with age and sex, performed best among the various simple models tested at both the individual and group level. The researchers argued that ACGs are relatively inexpensive to administer when appropriate data systems are in place and rate fairly well in terms of acceptability, resistance to gaming, and ability to audit (Park Nicollet 1994).

The Health Care Financing Administration (HCFA) has funded a new study at Boston University to develop a model based on DCGs for the under-65 population. Although DCGs currently use only diagnoses from inpatient hospital stays, the new model will incorporate diagnoses from both inpatient and ambulatory encounters. A similar model is being developed for the Medicare population under another project.

In a study completed by the Health Insurance Association of America (HIAA) in 1994, various risk adjusters were reviewed by a work group of HIAA member company actuaries. The project used data from eight HIAA member companies to study 15 risk pools of enrollees. The study considered five approaches: ACGs, DCGs, age, a list of specified medical conditions used by New York State, and a list of high-cost medical events based on selected types of hospitalization. The study found that combined use of ACGs and DCGs reduced the weighted standard error in average group costs by 93 percent. A second model, combining age and high-cost medical events, performed equally well (HIAA 1994).

Survey-Based Measures of Health Status

Two competing survey-based approaches have gained considerable attention over the past year, as research has been published on their feasibility for risk adjustment. One uses the SF-36 (also known as the RAND-36), a 36-question survey of perceived and functional health status developed for RAND's Medical Outcome Study. The other approach uses a list of self-reported chronic conditions. The latter approach, in particular, has yielded promising results in several recent projects.

The Park Nicollet researchers concluded that simple measures such as the presence or absence of chronic conditions are preferred to more complex health status measures such as the SF-36. The simpler measure appeared to have as much predictive ability as the SF-36, and it would be more easily validated. The Park Nicollet researchers further concluded that, where claims data are unavailable, a risk-assessment system based on self-reported measures could be substituted for one using claims-based measures. Such a system has about the same predictive ability as claims-based measures at both individual and group levels. In general, however, survey-based measures would be more expensive to administer than claims-based measures for those plans that have diagnostic data available. Their ability to resist gaming is unknown, but the SF-36 in particular is not easily audited (Park Nicollet 1994).

Hornbrook and Goodman have investigated survey-based measures with somewhat similar results. In one study they found that self-reported health status, based on the SF-36 and several of its subscales, improved group prediction substantially over demographics alone (Hornbrook and Goodman 1994a). They concluded that the SF-36 is a useful tool for medical risk assessment. Their second study developed risk-assessment models based on self-reported chronic conditions as well as demographic variables and perceived health status (Hornbrook and Goodman 1994b). They concluded that heart disease, diabetes, depression, and asthma were important risk measures for adults, but that they should be used in combination with other measures.

Brown and his colleagues (1993) have also suggested that indicators of chronic conditions show promise as an approach to risk adjustment, based on a study of the Medicare risk program. Their study differs from others described in this section, since indicators would be derived from claims data rather than from surveys. HCFA has funded a project at the Medical College of Virginia and Mathematica Policy Research to allow this research team to develop an implementable risk adjuster based on a history of cancer, heart disease, or stroke; the severity of the illness; length of time since the last hospital stay; and comorbidities. They plan to compare this model with those based on DCGs and ACGs. This project may also provide a framework for risk adjustment for the under-65 population.

Comparison of Alternative Approaches

One important development is the appearance of several research projects that directly compare different approaches to measuring risk adjustment. The Commission-sponsored Park Nicollet study was one of the first to make direct comparisons using standards of group and individual predictive accuracy and administrative feasibility (Table B-1). As noted, the researchers recommend claims-based over survey-based measures if an adequate data system is in place. Other studies, such as the Hornbrook-Goodman and HIAA studies noted above, also compare different approaches and make recommendations on specific combinations.

More comparative studies are under way. HCFA last year funded several new studies with an explicit goal of comparing approaches on different databases. In addition to the Medical College of Virginia/Mathematica study cited above, HCFA has made grants to the Kaiser Foundation Research

Institute and the Center for Health Economics Research. In addition, a research team at the Harvard Medical School received a grant to compare different systems' ability to explain variation in mental health and substance abuse costs.

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ERISA'S IMPACT ON INSURANCE MARKETS

This appendix provides background information on the Employee Retirement Income Security Act of 1974 (ERISA), its impact on insurance markets, and some proposed changes. It supports policy discussions in this report in the areas of small-group insurance reform, relationships between health plans and providers, and provider-driven integration (see Chapters 9, 10, and 11).

By tradition and by law, the federal and state governments share responsibility for regulating employer-provided benefits, including health insurance.¹ In effect, a complementary system has evolved in which the federal government regulates employers but not insurers, while the states regulate insurers but not employers.

This division of regulatory authority was created in large part by ERISA. It established federal standards for pensions and other employee benefit plans, including health plans, and prohibited the states from regulating such plans. The so-called preemption clause states that ERISA supersedes all state laws relating to employee benefit plans as defined under ERISA, except those specifically exempted. The one relevant exemption is for state laws regulating insurance.

If all employers purchased coverage from insurance companies or health maintenance organizations (HMOs) or if health insurance was not employment-based, the distinction created by ERISA would have limited importance for discussions about insurance market reform and other issues. But because more than half of all medium and large firms (as well as some small firms) self-insure, ERISA is an important factor in how health insurance is regulated. As self-insurance grows in popularity, ERISA's importance grows (KPMG Peat Marwick 1994).

Employers may choose to assume in full or in part the financial risk for health costs incurred by their employees. A self-insured firm may use an insurance company to perform administrative tasks, such as claims processing, or it might perform these functions itself. It may also purchase protection against catastrophic individual or aggregate claims through stop-loss policies. When a company self-insures to any extent, however, it is considered to be an employer plan and therefore exempted by ERISA from state regulation. States thus find that their power to regulate the business of health insurance does not give them authority to set rules for all actors in the insurance market.

WHAT ERISA DOES

ERISA was written by the Congress primarily to remedy problems of pension fraud and mismanagement, such as inadequate funding and poor investment of pension plans. It applies broadly

¹ This appendix draws heavily on material in CRS (1993), NGA (1994b), and NHPF (1994).

to employee benefit plans, including welfare benefit plans, defined in ERISA to include benefits such as child care, prepaid legal services, and medical care “through the purchase of insurance or otherwise.”

ERISA contains extensive reporting and regulatory requirements for pension plans, but it imposes only a few standards on health plans. Employers are required to meet some reporting and disclosure requirements for their health plans. For example, they must furnish a summary plan description to all plan participants and file an annual financial report with the Department of Labor.

In addition, plan participants have certain rights, including the right to file suit to recover benefits due them and protection against discrimination. An employer cannot terminate the employment of an individual to avoid paying medical expenses, but it can terminate its health benefit plan or modify its terms, a right reaffirmed by the courts when a company rewrote its plan to place a \$5,000 cap on AIDS benefits.² Finally, the Congress amended ERISA in 1986 and 1993 to require that most employers offer continued availability of group health coverage for 18 to 36 months to all former employees or beneficiaries who otherwise would have lost coverage.

The relatively limited federal regulation of welfare benefit plans included in ERISA may reflect, in part, circumstances at the time of its passage. A national debate over health reform was under way in 1974, and some policymakers may have assumed that federal rules governing employer-provided health benefits would be in place soon. Legislative initiatives have been regularly introduced to add to the federal regulation imposed by ERISA.

WHAT ERISA PREEMPTS

The ERISA preemption clause clearly prevents state regulation of health plans established by employers, but the full scope of this preemption remains ill-defined. A series of court challenges continues to test—and generally to broaden—the scope of the preemption clause. Among the state reforms that have been invalidated, at least as they apply to self-funded plans, are employer mandates, health plan premium taxes, global budget enforcement, uniform data collection, uniform claims procedures, medical liability arbitration, purchasing pool participation, rating restrictions, and risk adjustment (NGA 1994b).

Hospital rate-setting regulations in New Jersey and New York were challenged on the grounds that ERISA’s fiduciary standards prevent the use of plan assets to fund the care of nonplan members. Federal appellate courts have come to different conclusions in the two cases. The Third Circuit Court of Appeals upheld the New Jersey system on the grounds that states can indirectly impose costs on employer health plans as long as they do not require plans to structure or administer benefits in a particular way. The Second Circuit Court invalidated New York’s law, concluding that rate setting is

² In addition, the Supreme Court ruled in 1987 that ERISA does not guarantee the right of consumers to sue for damages for loss of life, health, or property; only the cost of the service originally denied them can be recovered (Kosterlitz 1994).

not protected by the insurance exemption to ERISA's preemption clause. The New York case was heard by the U.S. Supreme Court on January 18, 1995. Pending a ruling by the Supreme Court, states in other circuits (e.g., Maryland) run rate-setting plans in an environment of legal uncertainty.

Different types of taxes intended to fund state health reforms have also been challenged under ERISA. They include Minnesota's tax on providers, designed to help finance an expanded child health insurance subsidy, and Connecticut's sales tax on patient care services and tax on hospital gross earnings, both designed to provide broad-based funding for uncompensated hospital care. These taxes have been invalidated on the grounds that they indirectly tax employer health plans.

States can require insurers to use certain forms or submit data to the state, but they can only request voluntary compliance from self-funded plans (and even voluntary reporting has been challenged). Similarly, state insurance reforms such as community rating or portability of coverage cannot be required of self-funded plans. Finally, the risk-adjustment system developed by New York State was challenged successfully by the state's HMOs. Because they are governed by separate New York licensure laws, the court ruled that HMOs are not "insurers" and thus that the ERISA insurance exemption does not apply.

ERISA EXEMPTIONS AND ALTERNATIVES

The Congress has granted only one exemption to ERISA. Hawaii's requirement that all employers offer health insurance was challenged in court soon after ERISA's passage on the grounds that ERISA preempts any state regulation of employers' benefits.³ After the Supreme Court in 1981 upheld a decision invalidating the Hawaii law, the Congress granted Hawaii an exemption for its law—as originally enacted—in part because its law predated the passage of ERISA.

The House of Representatives, in its version of the Omnibus Budget Reconciliation Act of 1993 (OBRA93), included limited two-year ERISA waivers for four states (CRS 1993). These waivers would have been granted to Hawaii (for changes in its original exempted law), Maryland (for its health services cost review commission and its all-payer hospital rate-setting plan), Minnesota (for its provider tax and its data-collection activities), and New York (for its all-payer hospital rate-setting system and its pooled hospital funds for bad debt and charity care cases). These waivers, however, were not included in the enacted version of OBRA93.⁴

ERISA is sometimes viewed as an impediment to regulation of evolving markets and market reform. States argue that ERISA waivers are critical because ERISA stifles innovation rather than

³ Other states, knowing that an employer mandate would be invalidated, have proposed or enacted "play or pay" approaches as an alternative. The courts have thus far not ruled on this approach.

⁴ One provision that did become law in OBRA93 amends the tax code so that employers receive federal tax deductions for the health plan contributions only if they pay the New York State hospital rate surcharge.

encouraging state experimentation. They believe that ERISA blocks their ability to test strategies for financing universal coverage, containing costs, and evaluating the effectiveness of their initiatives within a system of employment-based insurance (NGA 1994a). As self-insurance continues to grow in popularity, states may find themselves able to address insurance market issues for and base financing on an increasingly small portion of their populations.⁵ They also fear that ERISA will affect their ability to regulate new entities that are not classified as insurers.

Many large businesses and labor groups, however, believe that federal jurisdiction over employee benefit plans serves a key purpose by allowing large multistate employers to offer identical benefit packages to all of their workers. It also spares them the burden of complying with requirements that differ by state (e.g., mandated benefit, coverage, and reporting requirements). As such, state regulations could be an impediment to nationwide negotiation between labor and management over health benefits and could increase administrative costs for multistate employers.

An alternative to offering exemptions to the ERISA preemption clause would be for the federal government to make broader use of its own regulatory powers. It could, for example, impose uniform national rules prohibiting preexisting condition exclusions for people who were previously insured. A second option would allow federal agencies to grant specific ERISA exemptions to test different reform strategies, conditioning them on explicit congressional objectives and state capacity and making them renewable only if performance objectives were met (GAO 1992; NGA 1994b). A third option would be to amend ERISA to allow states to proceed with reforms while protecting the interest of large multistate firms. States could be free from ERISA preemption if their reforms met a set of national standards. Large multistate firms could be certified as in compliance with these approved state programs by meeting one set of national standards, including agreement to participate in certain approved state financing mechanisms (Rydell 1994).

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⁵ This trend also concerns commercial insurers and Blue Cross Blue Shield plans. They may be required to offer community rates that firms can undercut by self-insuring or to finance state pools for reinsurance or medically uninsurable individuals that would otherwise have a broader funding base.

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STATE RESPONSES TO PROVIDER AND CONSUMER CONCERNS ABOUT MANAGED CARE

The growth of managed care and its potential to affect physician practice options and patient choice of providers have raised a new set of issues for federal and state policymakers. Providers are concerned about being excluded from health plan networks and the corresponding loss of some portion of their established patient base. Consumers are concerned that their freedom to choose their own health care providers will be restricted or subjected to large financial penalties. At the same time, health plans argue that they will be less able to manage care effectively if their ability to select physicians for their networks and constrain patient use of out-of-network providers is curtailed, thus reducing the overall benefits expected from this type of delivery system.

State policymakers are considering several types of legislation in response to these concerns. Recently, several states have enacted “any willing provider,” due process, and freedom of choice laws, while others have rejected similar initiatives. This activity is likely to continue in the 1995 state legislative sessions, as these issues and others related to managed-care systems are expected to remain a priority of state policymakers.

This appendix reviews state responses to provider and consumer concerns about managed care. Provider concerns are dealt with in the first section, which includes a review of state any willing provider laws, essential community provider laws, and due process laws. The second section addresses consumer concerns. Here, freedom of choice and point-of-service laws as well as other consumer protections are discussed.¹

POLICIES AFFECTING PROVIDERS

States have been considering several different types of measures to address providers’ concerns. Perhaps the strongest is a measure to require health plans to admit to their networks any provider willing to abide by the terms and conditions of the contract, commonly known as an any willing provider law. A variant on this approach would call for insurers to include certain providers that are deemed essential (sometimes referred to as essential community providers). A less stringent step is to require that plans use open and fair criteria for selection and retention. This might entail publishing of criteria, requiring open solicitations, or restricting use of certain criteria. Finally, due process legislation could build certain protections into the process by which provider applications and renewals are considered, including appeals rights for excluded physicians.

¹ The information presented on state laws draws from several sources, including AMA 1994, AMCRA 1994, BCBSA 1994, GHAA 1994c, and IHPP 1994.

Any Willing Provider Laws

State passage of any willing provider laws is largely a very recent phenomenon. Currently, 25 states have some form of an any willing provider law, half of which have been enacted since 1993. During the 1994 legislative session, 36 states considered 94 any willing provider or related bills (AMCRA 1994). While the trend is toward greater use of these laws, Montana recently allowed its any willing provider law to expire; similar efforts are currently under way in Idaho to repeal its 1994 law.

Scope. Any willing provider laws differ in the scope of providers covered, with a trend toward applying the laws to a broader set of providers. The first any willing provider laws generally applied only to pharmacy services. Before 1993, only four states had passed laws that extended beyond pharmacies. As the use of provider networks increased and physicians raised concerns about being excluded from managed-care networks, these laws have evolved to include physician and other provider services. The broadest laws, such as the one that was recently enacted in Arkansas, compel any health maintenance organization (HMO) and preferred provider organization (PPO) to accept all providers that agree to their contract terms.

More than half of state any willing provider laws are limited to pharmacy services; in 11 states, however, the laws apply to all or most categories of health care professionals, though one state targets allied health practitioners only. Provisions to extend mandatory contracting principles to hospitals have been incorporated in most of the any willing provider laws that extend beyond pharmacies.

Virginia's any willing provider statute, enacted in 1983, is one of the longest-standing laws encompassing several classes of providers. The law, which applies to PPOs established by commercial insurers and nonstock corporations (e.g., Blue Cross Blue Shield plans), requires insurers to establish the terms and conditions that hospitals, physicians, or other specified health care or mental health care providers must meet to qualify for payment as preferred providers. The law goes on to state that "no hospital, physician or type of [other specified] provider willing to meet the terms and conditions offered to it or him/her shall be excluded."

Any willing provider laws also differ in the types of managed-care organizations covered. Of the 11 states whose laws encompass more than pharmacies, five apply to PPOs only and six to both HMOs and PPOs.

The application of any willing provider laws to various kinds of managed-care entities is important because HMOs and PPOs typically have different contractual relationships with providers. HMO contracts are likelier to have provisions related not only to payment, but also to adherence to utilization review protocols, practice guidelines, and quality standards. By contrast, PPO contracts traditionally have few provider requirements beyond the acceptance of discounted payment. As a result, a law allowing any provider willing to abide by contractual terms and conditions to join a plan's network will affect HMOs and PPOs in distinct ways. Further, when laws apply only to certain types of plans, they could disrupt competition between those that are affected and those that are exempt.

The scope of any willing provider laws may be restricted in other ways. For example, a provision related to restrictive state laws and practices in the federal HMO Act could be interpreted to exclude federally qualified HMOs from state any willing provider laws, though this issue has not been tested in court. The Employee Retirement Income Security Act of 1974 (ERISA) restricts the states from applying these laws to self-insured employer plans, which may include many PPO arrangements (see Appendix C). In addition, some states exempt group-model and staff-model HMOs from these laws.

Impact. Evidence of the impact of any willing provider legislation is lacking. In addition to the paucity of empirical data, differences in the application, implementation, and enforcement of any willing provider laws may complicate efforts to determine their true effect. While these laws appear to allow any willing provider to participate in a plan's network, the spirit of the law may be compromised by other factors. For example, a review of four Virginia court rulings related to hospital inclusion in plan networks suggests that insurers maintain a great deal of latitude in how they develop their provider networks, even under the state's strictly written law. These rulings, which were in favor of insurers, have upheld their varying methods of establishing terms and conditions. Further, at least in Virginia, any willing provider provisions do not seem to have prevented insurers from including only hospitals they preferred in their networks (Joint Commission on Health Care 1994). Given uncertainties about how courts will rule in the future, how broadly ERISA allows these laws to apply, and the degree to which they are enforced, it is difficult to estimate the effect of these laws on providers with any accuracy.

Studies sponsored by the insurance industry uniformly conclude that any willing provider provisions increase the cost of health care. In separate analyses performed for the Health Insurance Association of America, the Group Health Association of America (GHAA), and the American Managed Care and Review Association, any willing provider mandates were found to increase administrative and claims costs, as well as premiums (Wyatt Company 1991; Atkinson & Company 1994; Rogers 1994).

The American Medical Association (AMA), however, has questioned the validity of these studies. For example, the AMA argued that the projected increases in provider participation rates in managed-care networks under any willing provider laws were too high in the GHAA-sponsored study. This projection is quite important, because it is key to determining the projected cost impact of any willing provider legislation. The AMA found that, while some states have experienced increases in provider participation rates following the enactment of any willing provider legislation, these have not been as large as those assumed by this study (Simon 1994).

The Federal Trade Commission (FTC) has raised issues about the competitive effects of any willing provider laws. The FTC has issued advice to several requesting state legislatures on the possible impact any willing provider laws might have on competition and health costs. Although state laws vary, the FTC has consistently stated that such legislation "may limit firms' ability to reduce the cost of delivering health care without providing any substantial public benefit." The FTC notes that the inability to contract selectively would "discourage contracts with providers in which lower prices are offered in exchange for the assurance of higher volume... and could inhibit the realization of cost savings." Finally, the FTC states that although any willing provider legislation may be intended to

ensure consumers greater freedom of choice, “it appears likely to have the unintended effect of denying consumers the advantages of cost-reducing arrangements and limiting their choices in the provision of health care services” (Wise 1993).

Recently, a few states have established commissions to explore the consequences of any willing provider provisions and to search for political consensus. Except for Florida, which commissioned an independent impact study, the state commissions have generally based their recommendations on information obtained through hearings and analysis of existing research findings.

Florida’s House Appropriations Committee commissioned Arthur Andersen & Company to study, among other things, the impact of adding any willing provider provisions to the state’s Health Security Program. Andersen concluded that the effects of applying an any willing provider rule to primary care physicians and specialists would be significant. The firm stated that, under such a provision, “Payors would have far less leverage to negotiate fees with physicians. In addition, utilization management programs would be spread over a far greater number of physicians, diluting their effectiveness and focus. The combination of these effects would eliminate much or all of the cost savings achievable through managed care. Furthermore, administrative expenses would increase, due to greater network size.” Andersen estimated that this provision would increase by 15 percent the monthly per member cost for the Florida Health Security Program as well as the cost of private-sector managed-care plans (Andersen 1994).

Last year, Virginia directed its Joint Commission on Health Care to study the effect of the state’s 1983 statute on the health care market. Its findings and recommendations, recently submitted to the governor and the 1995 General Assembly, included options to maintain or repeal the any willing provider provisions, or replace them with less restrictive due process provisions (Joint Commission on Health Care 1994). After deliberations on the issue, the General Assembly decided to maintain the status quo. This decision appears to reflect the legislature’s thinking that any increased costs associated with the legislation can be justified in terms of greater consumer choice of providers.

The Texas Legislature also requested a study of the impact of adding any willing provider legislation to its current due process and freedom of choice laws. After holding several hearings, the Joint Interim Committee on Qualified Providers identified the major issues, but was unable to develop a conclusive recommendation “because of the extreme polarized positions of the concerned entities” (Joint Interim Committee on Qualified Providers 1994).

Colorado, Indiana, and New Hampshire are among other states that have established committees to study and report on the impact of either proposed or existing any willing provider laws.

Essential Community Provider Laws

A number of health care reform proposals put forth in the Congress last year contained provisions to ensure inclusion in health plans of certain providers whose services were deemed essential to the community. These provisions might be viewed either as protecting the consumers served by these

providers or as protecting the providers themselves. Although only two states have enacted laws to protect these essential community providers, more states are expected to take up this issue.

Colorado and Tennessee have enacted versions of essential community provider laws. Colorado's law requires that health care services of essential providers be included in publicly funded health benefit plans. The Tennessee statute requires that each managed-care organization provide all enrollees with access to services at St. Jude Children's Research Hospital, when such access is practical, feasible, and medically appropriate. It further requires that reimbursement to St. Jude's be no greater than the reimbursement a plan would pay to another entity providing similar services (AMCRA 1994).

Due Process Laws

State legislators have also turned to due process measures to require that health plans develop and disclose the criteria and processes they use to select providers (AMCRA 1994). Due process provisions may be incorporated as part of any willing provider laws, or they may stand on their own.

Several types of laws can be considered due process measures, including those related to the disclosure of information to providers, those related to the appropriateness of criteria used in selection (and "deselection") decisions, and those related to provider appeals of network decisions.

Due process provisions have been incorporated in policies enacted by 13 states. Nine of the state policies apply to all or most classes of providers, while the rest apply to pharmacies only. The laws differ with respect to the plans affected: Some apply only to HMOs, others only to PPOs, and some to both.

Due process laws related to disclosure may include requirements for plans to provide notice when a network is forming, to disclose provider selection criteria, to provide written public notice for provider contract termination, and to disclose the reasons for terminating a provider's contract. Connecticut's due process law, for example, requires networks to file selection criteria and criteria for terminating preferred providers with the state Commission on Hospitals and Health Care. It further requires a network to provide public notice of its intention to develop a preferred provider network in the service area in which it plans to operate.

Due process laws related to selection criteria may include requirements that terms and conditions for provider participation in networks be nondiscriminatory and that plans set up preferred provider contracts through a request-for-proposal process, whereby all health providers could submit a bid. They might also include any provision to require that criteria be fairly applied so that, for example, profiling of physician practice patterns includes appropriate adjustments for case mix.

Texas has one of the more extensive due process laws. While the law allows PPOs to require preferred providers to comply with terms and conditions that go beyond the acceptance of a reduced fee, the

contract terms and conditions must be “reasonable” and based “solely on economic, quality, and accessibility considerations.” All providers willing to abide by these terms and conditions must be allowed to apply for and be afforded “a fair, reasonable, and equivalent opportunity to become preferred providers.” In addition, the law requires disclosure of selection criteria by insurers to applicants, notification of the reasons and criteria upon which a denial to the network is based, and the establishment of a panel composed of at least three physicians to review these denials (Texas Department of Insurance 1993).

The Commission has previously addressed the issue of ensuring accuracy and fairness in the use of physician profiles for making selection and retention decisions. It stated in 1992 that users of physician profiling should be responsible for making comparability adjustments based on both provider and patient characteristics, obtaining adequate observations to ensure that differences are not due to chance alone, and developing means to enable providers to take effective action. In particular, the Commission stated its preference for the use of profiling as an educational tool more than as a means to select good providers or to sanction bad apples (PPRC 1992). Ongoing work on case-mix adjustment for profiling has accentuated the need for making adjustments and provided better tools to do so (Salem-Schatz et al. 1994). Thus far, no states have adopted legislation specifically addressing the use of physician profiles.

Finally, due process laws may require plans to establish grievance procedures for providers they have deselected or rejected. At least two states have enacted legislation that addresses due process in deselection decisions in addition to those states that incorporate these provisions in their any willing provider laws.

A recent ruling concerning provider due process by a California appellate court granted “a common-law right to fair procedure” to physicians and dentists who contract with managed-care plans. The *Delta Dental Plan v. Charles Banasky* ruling bars private entities from arbitrarily excluding or expelling providers if important economic interests are at stake. The ruling is important because it gives providers new legal grounds to challenge deselection decisions. By applying the common-law right to due process and fair procedure to managed-care providers, the ruling allows providers to appeal deselection decisions whether or not the plan recognizes this right. This ruling is binding only in California’s second district. But if the precedent is followed, it could mean that providers have a fundamental right to due process (at least in deselection cases), regardless of specific state due process laws and other protective measures (Johnsson 1994).

In another significant court ruling related to due process laws in general, a Connecticut Superior Court judge dismissed a case involving a group of physicians and patients who charged CIGNA HealthCare with unfair trade practices and violation of Connecticut’s due process law after CIGNA dropped the physicians from its preferred provider list. The patients in the case contended that the nonrenewal of their physicians’ affiliation with CIGNA would result in interruptions in treatment, and that consumer protection laws were broken because CIGNA misrepresented the reasons for the deselection. The judge indicated that Connecticut’s law does not fall under ERISA’s exception for state insurance law and is preempted by ERISA’s provisions governing employee benefit plans. The case is currently being appealed (Pallarito 1995).

POLICIES AFFECTING CONSUMERS

The CIGNA case illustrates some of the concerns of consumers in a changing health care system. Because consumers in a network plan generally commit to that plan for a year, they are concerned about the availability of a broad network of providers and the consequences of physicians leaving a network (whether voluntarily or not) with inadequate notice to consumers.

Measures to enable consumers to choose their health care providers have taken several forms. One approach, referred to as a freedom of choice law, would guarantee that consumers can see any provider they choose without excessive financial penalties. A variation on this approach is to require that consumers have access to at least one health plan option that provides unrestricted choice of providers, either by requiring that all plans offer a point-of-service (POS) option or by insisting that at least one fee-for-service or point-of-service plan be available through employers. This option would address consumer concerns in situations where they are locked into plans or have a very limited, if any, choice of plan. A third option focuses only on transitional protection that would allow consumers to continue to see providers with whom they have an established relationship if the provider leaves or is removed from the plan between open enrollment periods.

In addition, consumer protection is one of the motivations for the essential community provider laws described earlier. The issue here is one of protecting traditionally underserved, higher-risk consumers, who the health plan may have some incentive to avoid. Critics have charged that some plans tend not to select providers who serve these patients. Proponents of such provisions argue that requiring managed-care plans to contract with essential community providers would help to hold these plans accountable to local needs and vulnerable populations, and ensure that plan networks are broad enough to care for those in underserved areas. As with other mandatory contracting provisions, the managed-care industry stands opposed to essential community provider legislation, arguing that such provisions would duplicate services and raise health care costs.

Freedom of Choice Laws

Several states have enacted or are considering laws that are aimed at ensuring consumers' choice of provider. Freedom of choice laws expand patients' choice of providers not by increasing the number of providers participating in a network (as any willing provider laws do), but by allowing enrollees to receive services from nonnetwork providers, often with no reduction in benefits (as long as the provider agrees to accept the insurer's level of reimbursement for the service). A fundamental difference between freedom of choice laws and any willing provider laws is that providers are generally not required to abide by the terms and conditions established by the plan under freedom of choice laws. Because out-of-plan providers are not subject to the plan's utilization management and quality assurance standards, managed-care plans are concerned about being held responsible for the quality of care their patients receive from nonnetwork providers.

Freedom of choice laws permit plan members to seek care from out-of-plan providers, and they may limit financial incentives designed to promote use of plan providers. These laws have been passed in

some form in 18 states. As with any willing provider laws, the laws differ in their application. In eight states, these laws apply only to pharmacy services and in five, to all or most classes of providers. The remaining five apply to special categories of services (e.g., emergency services) or providers (e.g., chiropractors or optometrists). Of the five states with laws that cover all or most classes of providers, three apply to all plans and two only to PPOs.

Texas's freedom of choice law pertains to all types of providers in preferred provider networks. The law prevents insurers from restricting the rights of enrollees to select the hospital or practitioner of their choice. Although enrollees must be allowed to see the providers they choose, they might be required to pay more out-of-pocket expenses for exercising this option, since PPOs can offer financial incentives to their enrollees to use network providers (Texas Department of Insurance 1993). It appears that this law describes precisely the standard definition of a PPO and the rights that any PPO-eligible consumer has. If so, it does little more than ensure that Texas PPOs maintain the right of consumers to go out of network and do not impose excessive expenses if they do.

Wyoming has passed a series of laws that are designed to encourage the use of in-state providers. In response to provider concerns that patients are being drawn to nearby out-of-state providers, Wyoming enacted any willing provider, due process, and freedom of choice statutes that only apply to in-state providers. Its freedom of choice law requires HMOs and PPOs licensed in Wyoming to allow their enrollees the freedom to opt to receive services from any providers they wish within the state, rather than go out of state for similar services (AMCRA 1994).

Several states are currently considering both broad and narrow (i.e., pharmacy services only) forms of freedom of choice legislation. While efforts to enact these provisions are under way across the states, Virginia recently decided to repeal its 1994 freedom of choice law that applied to ancillary services. The vote to repeal the law followed a Health Care Financing Administration (HCFA) inquiry that found the statute in violation of the federal HMO Act. The HMO Act does not permit enrollees in federally qualified HMOs to receive out-of-plan ancillary services, although it allows them to get some care from out-of-plan physicians. HCFA noted that compliance with the statute would require HMOs to engage in practices that would keep them from becoming federally qualified, and such state laws are preempted by the federal HMO Act (Armstead 1994).

Point-of-Service Plans

Another measure to ensure greater consumer choice would be to require the availability of point-of-service options. These allow managed-care plan enrollees to use nonnetwork providers if they pay higher deductibles and coinsurance. To offer this option, plans must establish a way to pay non-network providers. As noted in the Commission's 1994 annual report, point-of-service options have become increasingly popular in recent years. Data published by GHAA indicate that in 1993, 59 percent of all HMOs offered this option, up from about 20 percent three years earlier (GHAA 1994a). Independent practice associations were somewhat more likely than group-model or staff-model HMOs to do so. Enrollment in POS products still, however, represents a small portion of overall enrollment—an estimated 2.6 million enrollees, or about 6 percent of HMO enrollees (GHAA 1994b).

In the Commission's recent survey of managed-care organizations, 57 percent of the HMOs reported an open-ended HMO product among their offerings (Gold et al. 1995). This result is quite similar to GHAA's finding in 1993.

To offer POS options, some plans—especially staff-model or group-model HMOs—find they need to forge links with traditional insurers. Others (e.g., Kaiser Permanente) are forming their own insurance companies. This type of restructuring may be necessary to increase the HMO's flexibility or to comply with state insurance regulations.

While no state has enacted legislation requiring managed-care plans to offer POS options, at least three have enacted laws that limit their use. These laws are written to guarantee fiscal solvency of the plans. In California, for example, the law requires plans offering POS coverage to limit their offerings of POS contracts and expenditures for out-of-network services. The law additionally requires that a plan "make special deposits of cash or securities; track in-plan and out-of-plan utilization separately; and demonstrate to the commissioner of corporations adequate fiscal, administrative, and marketing capacity to control point-of-service plan contract enrollment, utilization, and costs so as not to jeopardize its financial security or management capacity" (IHPP 1994). Vermont and New York have passed similar solvency-related legislation.

Transitional Protections

Another option that has been raised to respond to consumer concerns would allow consumers the right to change their plans between open enrollment seasons when their primary care provider leaves the plan. This option, although weaker than the Medicare rule allowing consumer disenrollment at the end of any given month, might be administratively difficult to implement. Alternatively, consumers in this situation could be allowed to continue care with existing providers who leave the plan until the next enrollment period. New Hampshire recently issued regulations that preserve the continuity of mental health care when there has been a change in an enrollee's health benefit plan. The regulations allow a recipient of mental health services to continue to receive these services from the same mental health provider for one year following the change in benefit plans, even if the enrollee voluntarily switches plans during an open enrollment period. Another approach would be to restrict plans' ability to prune their networks outside of the annual open enrollment season. Such a rule could also serve as a modified version of an any willing provider law. Plans, however, might oppose these provisions, arguing that they could restrict plans' ability to maintain a high-quality, cost-effective network. Other than New Hampshire, no state has enacted these transitional protections.

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BIOGRAPHIES
COMMISSION MEMBERS

JOHN M. EISENBERG

John M. Eisenberg, M.D., M.B.A., is Chairman of the Department of Medicine, Physician-in-Chief, and Anton and Margaret Fuisz Professor of Medicine at Georgetown University Medical Center. He is a graduate of the Washington University School of Medicine, St. Louis. After a residency in internal medicine at the Hospital of the University of Pennsylvania, Dr. Eisenberg was a Robert Wood Johnson Foundation Clinical Scholar and earned a master's of business administration degree at the Wharton School. He served as Chief of the Division of General Internal Medicine at the University of Pennsylvania from 1978 to 1992 and was Sol Katz Professor of General Internal Medicine. Dr. Eisenberg has been a member of the Physician Payment Review Commission since 1986 and was named Chairman of the Commission in 1993. Dr. Eisenberg also serves as Director of the Robert Wood Johnson Foundation Generalist Physician Faculty Scholars Program. He served as President of the Society for General Internal Medicine and Vice President of the Society of Medical Decision Making. He was the first physician to be President of the Association for Health Services Research. Dr. Eisenberg has served as a member of the Board of Regents of the American College of Physicians and the board of the Association of Program Directors in Internal Medicine. From 1986 to 1993, he was on the Board of Directors of the American Board of Internal Medicine, and was elected to its Executive Committee for 1992-1993. He has been elected to membership in a number of honorary professional societies and in 1993 was named Distinguished Internist of the Year by the American Society of Internal Medicine. He also has received the Alumni Achievement Award of the Wharton School's Health Care Administration Program. Dr. Eisenberg has been a consultant to and member of editorial boards of several major medical and health policy journals. He has published more than 200 articles and book chapters on topics such as physicians' practices, test use and efficacy, medical education, and clinical economics. He is the author of *Doctors' Decisions and the Cost of Medical Care* and a coauthor of *Paying Physicians*.

LINDA H. AIKEN

Linda H. Aiken, Ph.D., is Trustee Professor of Nursing; Professor of Sociology; Director of the Center for Health Services and Policy Research; and Senior Fellow, Leonard Davis Institute for Health Economics at the University of Pennsylvania. Before joining the University faculty in 1988, she was Vice President of the Robert Wood Johnson Foundation for 13 years. Dr. Aiken is a frequent adviser to federal and state policymakers. She is the author of numerous scientific and policy papers on access to and the organization and financing of health services, particularly AIDS care and health work force policy. Dr. Aiken is a member of the Institute of Medicine of the National Academy of

Sciences and the National Academy of Social Insurance. A former President of the American Academy of Nursing, Dr. Aiken was also a member of the 1982 Social Security Advisory Council. She has served on national advisory groups on the organization and financing of long-term care for the elderly. She received nursing degrees from the University of Florida at Gainesville, and a doctorate in sociology and demography from the University of Texas at Austin.

RICHARD V. (DICK) ANDERSON

Richard V. (Dick) Anderson is Vice President, Marketing Support, for the Kaiser Permanente Medical Care Program. His responsibilities include marketing services for national employers, product development and planning, market research and analysis, pricing and benefit design, and insurance services. During his 25-year involvement with Kaiser Permanente, he has also supported health services research, data analysis, and reporting activities. He represents Kaiser Permanente in relations with employers, health benefits consultants, business coalitions, government agencies, and other external organizations. He has been especially active in committees and work groups of the Group Health Association of America and Washington Business Group on Health. Mr. Anderson received a bachelor of science degree from Washington State University and a master's of public health from the University of California, Berkeley. He also completed Harvard Business School's Advanced Management Program and has attended the University of Washington. A member of the Physician Payment Review Commission since 1990, he was interim Chairman in 1993.

GILES G. BOLE

Giles G. Bole, M.D., is the Dean of the University of Michigan Medical School, where he has served for 25 years in successive faculty and administrative positions, including Senior Associate Dean and Executive Associate Dean. He is a specialist in rheumatology and has been active in both clinical and laboratory investigations. Prior to his appointment as Senior Associate Dean, Dr. Bole was the Director of the Rackham Arthritis Research Unit, Chief of Rheumatology, and Director of the University of Michigan's Multipurpose Arthritis Center. Dr. Bole is a member of the Association of American Medical Colleges' Advisory Panel on Strategic Positioning for Health Care Reform and the Academic Health Center Working Group. He has served in various capacities of numerous professional associations, including the American Board of Internal Medicine, the National Institutes of Health, the American College of Physicians, the American College of Rheumatology, and the Arthritis Advisory Committee of the Food and Drug Administration. He is the author of many peer-reviewed journal articles and book chapters, and was on the editorial board of *Arthritis and Rheumatism* and *Annals of Internal Medicine*. Dr. Bole received a medical degree from the University of Michigan, where he also completed an internship and residency in internal medicine.

P. WILLIAM CURRERI

P. William Curreri, M.D., is President of Stratagem of Alabama, Inc., an international health care marketing and consulting firm. Dr. Curreri has served as Professor, Chairman, and Chief of Surgery at

the University of South Alabama in Mobile. He was also on the faculty of the University of Washington School of Medicine in Seattle, and was named the Johnson & Johnson Professor of Surgery while on the faculty of Cornell Medical Center in New York. A member of numerous professional societies and organizations, Dr. Curreri is a former President of the American Burn Association, the Society of University Surgeons, the Halstead Society, and the American Association for the Surgery of Trauma. Author of numerous articles on surgery, Dr. Curreri is a consultant to and member of the editorial boards of several major surgical and burn care journals. He is past Editor-in-Chief of *The American Surgeon*. Dr. Curreri has been a frequent adviser to the National Institutes of Health. He was a member of the Institute's Surgery, Anesthesia, and Trauma Study Section from 1980 to 1988, which he chaired from 1986 to 1988. He is a member of the American Board of Surgery and is a former member of the Executive Committee of the Board of Governors of the American College of Surgeons, where he was Secretary from 1987 to 1989. Dr. Curreri received a medical degree from the University of Pennsylvania and completed a surgical residency at the Hospital of the University of Pennsylvania.

ANNE B. JACKSON

Anne B. Jackson is a member of the National Legislative Counsel of the American Association of Retired Persons and serves as chairperson of the Health and Future Generations Committee. A registered nurse for 45 years, she retired in 1989. Mrs. Jackson was a Professor in the Department of Nursing at City University of New York, and served in the positions of Medical Supervisor, Head Nurse, and Staff Nurse for the Veterans Administration (now the Department of Veterans Affairs). Mrs. Jackson received a bachelor's degree in education from Hunter College and a master's in nursing administration from Columbia University Teachers College. She also completed further studies at Teachers College.

ROBERT B. KELLER

Robert B. Keller, M.D., an orthopaedic surgeon, is Executive Director of the Maine Medical Assessment Foundation, a health services research organization. He was graduated from Dartmouth College and received a medical degree from Cornell Medical School. After serving in the U.S. Navy, he undertook training in orthopaedics in the Harvard Medical School Combined Residency Program. He is an Adjunct Professor of Community and Family Medicine and Surgery in the Dartmouth Medical School and Associate Clinical Professor of Orthopaedic Surgery at the University of Massachusetts Medical School. A member of numerous professional societies, he serves on the Council on Research and the Council on Health Policy and Practice of the American Academy of Orthopaedic Surgeons, and chairs the Academy's Committee on Outcomes Studies. He has published articles and book chapters on the subject of small area analysis, physician feedback and behavior change, outcomes research, and other topics. Dr. Keller is principal investigator of an Agency for Health Care Policy and Research-funded project focusing on information dissemination and physician behavior change in northern New England. He is co-investigator of a medical effectiveness Patient

Outcome Research Team evaluating low back pain and surgical outcomes and part of a National Institutes of Health-funded outcomes study of carpal tunnel syndrome. Dr. Keller is past President of the Maine Medical Association and a member of the Board of Directors of Medical Mutual Insurance Company of Maine. He currently chairs the Maine Health Care Reform Commission and is Vice Chairman of the Physician Payment Review Commission.

DONALD T. (TED) LEWERS

Donald Theodore Lewers, M.D., is a practicing nephrologist and internist and a staff member at the Memorial Hospital at Easton in Easton, Maryland. A member of the Board of Trustees of the American Medical Association, Dr. Lewers is Medical Director of the Easton Renal Treatment Center, Vice Chairman of the Board of Medical Mutual Liability Insurance Company of Maryland, and Chair of the Board and Chief Executive Officer of the Health Enhancement Center, Inc. Long active in organized medicine, Dr. Lewers served as President of the Medical and Chirurgical Faculty of Maryland from 1985 to 1986 and was Vice Chair of the RVS Update Committee. He received a bachelor's degree from the University of Maryland and medical degree from the University of Maryland School of Medicine. He completed an internship at the University of Maryland Hospital in Baltimore, a residency at Maryland General Hospital in Baltimore, and a fellowship in nephrology at Georgetown University Hospital in Washington, D.C.

PATRICIA M. NAZEMETZ

Patricia M. Nazemetz is Director of Human Resource Policies, Communications, and Benefits for Xerox Corporation in Stamford, Connecticut. She is responsible for the development and delivery of human resource program services, such as flexible work systems, life cycle support programs, flexible benefits, and employee assistance services, to support the needs and expectations of Xerox employees. She is also responsible for the development of human resource communications strategy and the delivery of information and communications in support of that strategy. She joined Xerox in 1979 as Benefits Operations Manager and held several subsequent positions in the Benefits Department. Before joining Xerox, she worked for W.R. Grace & Company. Ms. Nazemetz serves as a Director on the boards of the Kaiser Health Plan of New York, the Matthew Thornton Health Plan, and the Washington Business Group on Health. She currently chairs the board of the National Committee for Quality Assurance. She was formerly the Chair of the Corporate Board of the International Foundation of Employee Benefit Plans. She is also a member of the Academy of Women Achievers of the YWCA of New York City.

JOSEPH P. NEWHOUSE

Joseph P. Newhouse, Ph.D., is the John D. MacArthur Professor of Health Policy and Management at Harvard University, with appointments on the faculties of the John F. Kennedy School of

Government, the Harvard Medical School, the Harvard School of Public Health, and the Faculty of Arts and Sciences. He is the founder and Editor of the *Journal of Health Economics* and an Associate Editor of the *Journal of Economic Perspectives*. He is the current President of the Foundation for Health Services Research and serves on the Governing Council and Executive Committee of the Institute of Medicine. Dr. Newhouse spent the first 20 years of his career at RAND, where he was the principal investigator for the RAND Health Insurance Experiment. He has received the Distinguished Investigator Award from the Association for Health Services Research, the David N. Kershaw Award and Prize from the Association for Public Policy and Management, the Baxter American Foundation Prize, and the Administrator's Citation from the Administrator of the Health Care Financing Administration. He received a doctorate in economics from Harvard University.

UWE R. REINHARDT

Uwe R. Reinhardt, Ph.D., is James Madison Professor of Political Economy at Princeton University, where he has been teaching since 1968. Professor Reinhardt was a member of the National Leadership Commission on Health. He has served on several councils and task forces, including the Governing Council of the Institute of Medicine of the National Academy of Sciences; the National Health Care Technology Council of the Department of Health, Education, and Welfare; and the Veterans Administration's Special Medical Advisory Group. He also served as President of the Association for Health Services Research and on the editorial boards of a number of major health policy and economic journals. Professor Reinhardt is the author of *Physician Productivity and the Demand for Health Manpower*, as well as numerous articles on health economics, accounting, and corporate finance. These works include a financial analysis of the Lockheed L-1011 Tri-Star, a cost-benefit analysis of the Space Shuttle project, and pricing strategies for the space shuttle. Dr. Reinhardt's consulting activities have included work for the Department of Health and Human Services, Mathematica Policy Research, the Urban Institute, and Econ Incorporated. He has been a consultant in management training, primarily in managerial economics and corporate finance, for several major corporations. He received a doctorate in economics from Yale University and honorary doctorates from the Medical College of Pennsylvania in 1987 and the Mount Sinai Medical College in New York in 1994.

EARL P. STEINBERG

Earl P. Steinberg, M.D., M.P.P., is Vice President of Health Technology Associates, Inc. (HTA) and Co-Director of HTA's Outcomes Studies Group. Dr. Steinberg is also a Professor of Medicine at the Johns Hopkins University School of Medicine and has a joint faculty appointment in the Department of Health Policy and Management of the Johns Hopkins School of Hygiene and Public Health. He currently serves as a member of the National Blue Cross and Blue Shield Association's Medical Advisory Panel. His research focuses on technology assessment, the cost and effectiveness of alternative patterns of medical practice, methods for evaluating the quality of care, and the clinical and economic impacts of health care payment innovations. His major focuses at HTA are on design,

implementation, and management of outcomes and quality assessment systems for providers; and the development of tools, such as computerized decision support systems, disease management programs, and physician- or patient-targeted programmatic interventions that promote cost-effective care. Dr. Steinberg was the Principal Investigator on the federally funded Patient Outcome Research Team devoted to evaluation of variation in management of cataracts and their relationship to patient outcomes. He is now overseeing the design and implementation of a National Outcomes Database for the American Academy of Ophthalmology. Dr. Steinberg has received numerous awards, including the Henry J. Kaiser Family Foundation Faculty Scholar Award in General Internal Medicine (1984) and the Outstanding Young Investigator Award from the Association for Health Services Research (1988). Dr. Steinberg received a bachelor's degree from Harvard College, a medical degree from Harvard Medical School, and a master's of public policy from the Kennedy School of Government. He completed a residency in internal medicine at Massachusetts General Hospital.

BIOGRAPHIES

COMMISSION STAFF

PAUL B. GINSBURG, Ph.D., served as Executive Director from the Commission's inception in 1986 until January 1995. He has extensive experience with a wide range of health care financing issues, including physician payment, hospital payment, health insurance, and organized systems of care. He has written numerous articles and books on health care policy. Before joining the Commission at its inception in 1986, Dr. Ginsburg was a Senior Economist at RAND. He was Deputy Assistant Director for Income Security and Health at the Congressional Budget Office, where he prepared analyses for the Congress on federal health policy issues with significant budgetary implications. Dr. Ginsburg has served on the faculties of Duke University and Michigan State University. He earned a doctorate in economics at Harvard University in 1971. Dr. Ginsburg now heads the Center for Studying Health System Change, which is supported by the Robert Wood Johnson Foundation. Affiliated with Mathematica Policy Research, Inc., the Center is located in Washington, D.C.

LAUREN B. LeROY, Ph.D., became Acting Executive Director in January 1995; she has served as Deputy Director since the Commission's inception. Before coming to the Commission, Dr. LeRoy was Associate Director of the Commonwealth Fund Commission on Elderly People Living Alone. She spent 12 years at the Institute for Health Policy Studies, University of California, San Francisco, where she became Assistant Director and the Director of the Institute's Washington office. She also served as an analyst working on health issues in the Department of Health, Education, and Welfare. Dr. LeRoy's research interests and published work have focused on physician payment reform, physician training and practice, the nurse labor market, and health care for the elderly. She is a member of the National Academy of Social Insurance and serves on the Association for Health Services Research/Health Administration Press editorial board. She received a doctorate in social policy planning from the University of California, Berkeley.

DAVID C. COLBY, Ph.D., is a Principal Policy Analyst. He received a doctorate in political science from the University of Illinois. Previously, he held faculty and administrative positions at Williams College and the University of Maryland, Baltimore County. From 1986 to 1987, he was a Robert Wood Johnson Health Finance Fellow. At the Commission, he is focusing on access to care, quality of care, and Medicaid waivers.

DON COX, Ph.D., is a Senior Analyst. He received a doctorate in economics from the University of Maryland. Before joining the Commission, Dr. Cox was a Senior Economist at the Federal Trade Commission and Fu Associates, Ltd. In addition, he has worked in the Occupational Safety and Health Administration and the Department of Defense. His work at the Commission involves application of antitrust laws to physician networks, competitive bidding, and analysis of the impacts of Medicare payment policies on physicians and private payers.

CHRISTINE CUSHMAN is a Junior Analyst. She received a master's degree in public policy from Georgetown University. Her work at the Commission focuses on state regulatory policies related to managed care.

ELIZABETH DOCTEUR is an Analyst. She received a master's degree in public policy analysis from the University of Rochester. She previously worked at Strong Memorial Hospital in Rochester, New York, where she also completed an internship in the Medical Center's Office of Strategic Planning. Her current work at the Commission focuses on practice guidelines and on approaches to monitoring health plan performance and ensuring quality of care.

DONNA O. FARLEY, Ph.D., is a Senior Analyst. She received a doctorate in public policy from the RAND Graduate School. Before joining the Commission, she worked on RAND Medicare payment policy studies relating to hospital outlier payments and capitation payment for the End Stage Renal Disease Program. She brings more than 15 years of health care management experience to her health policy work, most recently serving as Senior Vice President for planning and business development for a regional system of Catholic hospitals based in the Chicago area. Her work at the Commission involves issues related to the Medicare risk program, telemedicine, and rural delivery systems.

HEATHER GOLD is a Junior Analyst. She holds a master's degree in public policy studies from the University of Chicago with certification in health administration and policy. Her work at the Commission focuses on the adoption of the Medicare Fee Schedule by Medicaid programs and private payers, community-based providers, and Medicaid demonstration waivers.

LORI GRUBER is an Analyst. She received a master's degree in public policy and management from Carnegie Mellon University. She worked previously as a statistician for the Center for International Research of the Bureau of the Census. Her work at the Commission focuses on rural delivery systems and the financial liability of Medicare beneficiaries.

KEVIN HAYES, Ph.D., is a Senior Analyst. He received a doctorate in health policy and administration from the University of North Carolina at Chapel Hill. He has worked as a health care planner for a local planning agency and for the Veterans Administration. His work at the Commission focuses on monitoring Medicare beneficiaries' access to care under the Medicare Fee Schedule.

ANNETTE HENNESSEY is the Executive Assistant. She received a bachelor's degree in political science from Mississippi State University in Starkville. Until joining the Commission, she worked for Senator Bill Bradley, where she was primarily responsible for administration of the legislative staff. As assistant to the Executive and Deputy Directors, she coordinates all Commission meetings, congressional briefings and testimony, and distribution of Commission documents.

JOHN F. HOADLEY, Ph.D., is a Principal Policy Analyst. He received a doctorate in political science from the University of North Carolina at Chapel Hill in 1979. Before joining the Commission staff, Dr. Hoadley was a Senior Research Associate at the George Washington University's National Health Policy Forum, where he was responsible for Forum sessions on health insurance, access,

quality of care, and physician payment, among other issues. Previously, he served as a Legislative Assistant in the office of Representative Barbara B. Kennelly and was an American Political Science Association Congressional Fellow in 1983-84. Earlier, Dr. Hoadley taught political science at Duke University and at the State University of New York at Stony Brook. His current work at the Commission focuses on the changing health system, especially issues related to managed care, plan-provider relationships, insurance reform, risk adjustment, and data systems.

CHRISTOPHER HOGAN, Ph.D., is a Principal Policy Analyst. He holds a doctorate in economics from Northwestern University. Before joining the Commission staff in 1989, he worked at the National Center for Health Services Research and served as Senior Economist with the Consolidated Consulting Group. He developed the Commission's initial reports on the Medicare Volume Performance Standard and on access to care for Medicare beneficiaries. He has also worked on a variety of other topics, including the Medicare Fee Schedule conversion factor, physicians' responses to the Medicare Fee Schedule, private insurers' payment levels, premium limits, and provider-driven integration.

SHERAN ESTES McMANUS is the Administrative Officer. Having received a bachelor's degree from the University of Maryland, she continued her studies at the George Washington University in Washington, D.C. She has more than 15 years of experience in program administration and management, primarily in programs dealing with health policy issues. She was previously Executive Associate of the George Washington University's National Health Policy Forum and served in various capacities at the Department of Health, Education, and Welfare. She is responsible for all financial management and administration of the Commission. She also oversees the production of all Commission publications.

KATIE MERRELL is a Senior Analyst. She spends a portion of her time at the Center for Health Administration Studies, University of Chicago. Before joining the Commission staff, she worked at Abt Associates in its Health Economics Research and Income Support and Education areas. She was also a Research Assistant at the Board of Governors of the Federal Reserve System, and a high school mathematics and computer science teacher. Her work at the Commission has been on practice expense; geographic adjustment of the Medicare Fee Schedule; simulating the impact of policy changes on fee schedule payments; and other issues, including the structure of the health insurance market and community rating.

ANNE SCHWARTZ is a Senior Analyst. She holds a master's degree and expects to receive a doctorate in health policy from the Johns Hopkins University this May. Previously, she held various positions as staff in the U.S. House of Representatives, where her work involved health, education, and child care issues. Most recently, her work at the Commission has addressed the changing labor market for physicians and other Medicare issues.

DAVID W. SHAPIRO, M.D., J.D., is a Senior Analyst. He spends a portion of his time at San Francisco General Hospital, where he is an Assistant Clinical Professor of Medicine. He received a medical degree from the University of California, Los Angeles, and a law degree from Yale. After

completing a residency in primary care internal medicine at UCLA, he was a Veterans Administration/Robert Wood Johnson Clinical Scholar. At the Commission, he has been working on technology assessment and coverage decisions, medical liability reform, the Medicare Fee Schedule, practice guidelines, profiling of physicians' practice patterns, and physician licensure and certification.

SALLY TRUDE, Ph.D., is a Senior Analyst. She received a doctorate in public policy analysis from the RAND Graduate School. Before joining the Commission staff, Dr. Trude was an Associate Policy Analyst at RAND working on physician payment issues. Her current work at the Commission focuses on the impact of the Medicare Fee Schedule on physicians and beneficiaries and on the Medicare Volume Performance Standard system.

COMMISSION RESPONSIBILITIES MANDATED BY THE CONGRESS, 1985 TO 1995

The Physician Payment Review Commission was established by the Congress through the Consolidated Omnibus Budget Reconciliation Act of 1985 (P.L. 99-272). It was charged with advising and making recommendations to the Congress on methods to reform payment to physicians under the Medicare program. Recommendations were to be submitted to the Congress no later than March 1 of each year (amended to March 31 by the Omnibus Budget Reconciliation Act of 1987 [OBRA87], P.L. 100-203).

The legislation identified eight specific areas that the Commission should address in its recommendations to the Congress. These included the feasibility of reducing specialty and geographic differences in payments, increasing physician participation in the Participating Physician and Supplier Program, determining the feasibility of using physician diagnosis-related groups, and identifying the appropriate use of assistants-at-surgery. The legislation also required that the Commission advise and make recommendations to the Secretary of Health and Human Services regarding the development of a resource-based relative value scale for physicians' services.

In the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647), the Congress further directed that the Commission consider policies for moderating the rate of increase in physicians' expenditures and utilization of physicians' services.

With the passage of physician payment reform legislation in OBRA89, the Commission was assigned the following new responsibilities: advising the Congress on setting standards for expenditure growth and updating fees; commenting on reports by the Secretary on issues related to utilization, access, and assignment policy; and conducting a series of mandated studies. These studies included payment for practice expenses, geographic payment areas, payment for nonphysician practitioners, physician payment under Medicaid, and payment for assistants-at-surgery.

The Congress further revised the Commission's responsibilities as part of OBRA90. It repealed the requirements relating to the development of the relative value scale, while expanding the Commission's responsibilities in other areas. OBRA90 requires that the Commission consider a wide range of policies, including:

- major issues in implementation of the Medicare Fee Schedule;
- further development of the Volume Performance Standard system, including development of state-based programs;

- payment incentives to increase access to primary care and other services in inner-city and rural areas, including federal policies regarding the level of Medicaid payments to physicians;
- the supply and specialty distribution of physicians and financing of graduate medical education;
- utilization review and quality of care, including the effectiveness of peer review organizations and other quality assurance programs;
- options to constrain the costs of health care to employers, including incentives under Medicare;
- medical malpractice reforms; and
- physician licensing and certification.

The Commission is also required to comment on the President's budget recommendations affecting physician payment under Medicare.

COMMISSION PUBLICATIONS

ANNUAL REPORTS TO CONGRESS

Published each year since 1987 (Executive Summaries also available)

MANDATED REPORTS TO CONGRESS

Fee Update and Medicare Volume Performance Standards (published annually since 1990)

Comments on the President's Budget for Fiscal Years 1993 and 1994 (published June 1992 and 1993)

Monitoring Access of Medicare Beneficiaries (published annually since 1991)

Monitoring the Financial Liability of Medicare Beneficiaries (published annually since 1991)

Physician Payment Under Medicaid, No. 91-4 (July 1991)

OTHER COMMISSION REPORTS

The Costs of Providing Screening Mammography, No. 89-2 (June 1989)

Variation in Medicare Global Service Policies: Relationship to Current Payment and Implications for a Fee Schedule, No. 89-2 (November 1989)

Medicare's Share in U.S. Physicians' Revenues, No. 89-4 (December 1989)

Survey of Visits and Consultations, No. 91-1 (April 1991)

Comments on the Notice of Proposed Rulemaking for the Medicare Fee Schedule, No. 91-6 (August 1991)

The Role of Specialty Societies and Physicians in the Commission's Evaluation of Relative Work Values, No. 91-7 (November 1991)

Optional Payment Rates for Physicians: An Analysis of Section 402 of H.R.3626, unnumbered (March 1992)

Practice Expense Under the Medicare Fee Schedule: A Resource-Based Approach, No. 92-1 (April 1992)

Background Papers Presented at the Commission's Conference on Profiling, No. 92-2 (April 1992)

Payment for Professional Liability Insurance Expense Under the Medicare Fee Schedule, No. 92-7 (December 1992)

Expenditure Limits: Design and Implementation Issues, No. 93-5 (July 1993)

Study of Behavioral Offset for Radiology Services, unnumbered (July 1993)

Payment for Trauma and Critical Care Services, No. 94-4 (July 1994)

SELECTED EXTERNAL RESEARCH REPORTS

Assignment and the Participating Physician Program: An Analysis of Beneficiary Awareness, Understanding, and Experience, No. 89-1 (Washington, DC: Mathematica Policy Research, Inc., September 1989)

Financial Incentives and Medical Practice: Evidence from Ontario on the Effect of Changes in Physician Fees on Medical Care Utilization, No. 89-3 (Ontario, Canada: Centre for Health Economics and Policy Analysis, McMaster University, December 1989)

Pre- and Postoperative Visits Associated with Surgical Global Services, No. 91-2 (August 1991)

Physicians and the Medicare Fee Schedule: A Look at the Medicare Program and Other Payers in a Changing Practice Environment, unnumbered (New York: Louis Harris and Associates, Inc., February 1993)

Survey of Physicians About the Medicare Program and Fee Schedule, unnumbered (Chicago: National Opinion Research Center, May 1994)

A Comparison of Alternative Approaches to Risk Measurement, No. 1 (Minneapolis, MN: Park Nicollet Medical Foundation, November 1994)

Models of Care for Inner-City Populations, No. 2 (Washington, DC: Center for Health Policy Research, George Washington University, November 1994)

Arrangements Between Managed Care Plans and Physicians: Results from a 1994 Survey of Managed Care Plans, No. 3 (Washington, DC: Mathematica Policy Research, Inc., February 1995)

These documents are available through the Commission office at no charge. To receive any of these publications, please write or fax the Commission at 2120 L Street NW, Suite 200, Washington, DC 20037, fax 202/653-7238, or call 202/653-7220. Please include the title and number or date of the publication and allow two to four weeks for delivery.

ACRONYMS

AACOM	American Association of Colleges of Osteopathic Medicine
AAPCC	Adjusted Average Per Capita Cost (Medicare)
AAPHO	American Association of Physician-Hospital Organizations
AARP	American Association of Retired Persons
ACE	Accelerated-Compensation Event
ACG	Ambulatory Care Group
ACIR	Advisory Commission on Intergovernmental Relations
ACR	Average Community Rate
ADR	Alternative Dispute Resolution
AFDC	Aid to Families with Dependent Children
AHCCCS	Arizona Health Care Cost Containment System
AHCPR	Agency for Health Care Policy and Research, HHS
AHPB	Adjusted Historical Payment Basis
AMA	American Medical Association
AMCRA	American Managed Care and Review Association
AMRRC	American Medical Review Research Center
ASC	Ambulatory Surgical Center
AZT	Zidovudine
BCBS	Blue Cross Blue Shield
BCBSA	Blue Cross Blue Shield Association
BMAD	Part B Medicare Annual Data Files
BPO	Bureau of Program Operations, HCFA, HHS
CABG	Coronary Artery Bypass Graft Surgery
CBO	Congressional Budget Office
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CHC	Community Health Center
CHPA	Community Health Purchasing Alliance
CHSO	Comprehensive Health Service Organization
CISN	Community Integrated Service Network
CMP	Competitive Medical Plan
CMSA	Consolidated Metropolitan Statistical Area
CPI	Consumer Price Index
CPR	Customary, Prevailing, and Reasonable
CPT	Current Procedural Terminology
CQI	Continuous Quality Improvement

CRG	Cost-Related Group
CRS	Congressional Research Service
CT Scan	Computed Tomography Scan
DCG	Diagnostic Cost Group
DEMPAQ	Developing and Evaluating Methods to Promote Ambulatory Care Quality
DME	Durable Medical Equipment
DOJ	Department of Justice
DRG	Diagnosis-Related Group
DSH	Disproportionate Share Hospital
EACH	Essential Access Community Hospital
EBRI	Employee Benefit Research Institute
EKG	Electrocardiogram
EM	Evaluation and Management
EPO	Exclusive Provider Organization
ERISA	Employee Retirement Income Security Act of 1974
ESRD	End Stage Renal Disease
FDA	Food and Drug Administration, HHS
FEHBP	Federal Employees Health Benefits Program
FEP	Federal Employee Program of the Blue Cross Blue Shield Association
FQHC	Federally Qualified Health Center
FTC	Federal Trade Commission
FY	Fiscal Year
GAF	Geographic Adjustment Factor
GAO	General Accounting Office
GDP	Gross Domestic Product
GHAA	Group Health Association of America
GME	Graduate Medical Education
GPCI	Geographic Practice Cost Index
GPWW	Group Practice Without Walls
HCFA	Health Care Financing Administration, HHS
HCPCS	HCFA Common Procedure Coding System
HCPP	Health Care Prepayment Plan
HCQIS	Health Care Quality Improvement System
HEDIS	Health Plan Employer Data and Information Set
HER	Health Economics Research, Inc.
HHS	U.S. Department of Health and Human Services
HI	Hospital Insurance
HIE	Health Insurance Experiment
HIPC	Health Insurance Plan of California
HIV	Human Immunodeficiency Virus
HMO	Health Maintenance Organization
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration, HHS

HSA	Health Service Area
HSQB	Health Standards and Quality Bureau, HCFA, HHS
ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
IDE	Investigational Device Exemption
IDS	Integrated Delivery System
IHPP	Intergovernmental Health Policy Project
IMG	International Medical Graduate
IOM	Institute of Medicine
IPA	Independent Practice Association
IRB	Institutional Review Board
IRS	Internal Revenue Service
ISN	Integrated Service Network
MAAC	Maximum Allowable Actual Charge
MAF	Medical Assistance Facility, Montana
MCBS	Medicare Current Beneficiary Survey
MCV	Medical College of Virginia
MDTV	Mountaineer Doctor Television, West Virginia University
MEI	Medicare Economic Index
MEWA	Multiple-Employer Welfare Arrangement
MGMA	Medical Group Management Association
MHC	Migrant Health Center
MPR	Mathematica Policy Research, Inc.
MRI	Magnetic Resonance Imaging
MSA	Metropolitan Statistical Area
MSO	Management Services Organization
MULA	Model Uniform Licensing Act, NAIC
NACHC	National Association of Community Health Centers
NAIC	National Association of Insurance Commissioners
NaSIMM	National Study of Internal Medicine Manpower
NCH	National Claims History (Medicare)
NCQA	National Committee for Quality Assurance
NGA	National Governors' Association
NHSC	National Health Service Corps, HHS
NIH	National Institutes of Health, HHS
NLM	National Library of Medicine, NIH, HHS
NMES	National Medical Expenditure Survey
NORC	National Opinion Research Center
NPDB	National Practitioner Data Bank
NPP	Nonphysician Practitioner
NRMP	National Resident Matching Program
OACT	Office of the Actuary, HCFA, HHS
OBRA	Omnibus Budget Reconciliation Act

OHTA	Office of Health Technology Assessment, AHCPR, HHS
OIG	Office of the Inspector General, HHS
OPM	Office of Personnel Management
OTA	Office of Technology Assessment
PACE	Program of All-Inclusive Care for the Elderly
PAR	Participating Physician and Supplier Program (Medicare)
PCCM	Primary Care Case Management
PET	Positron Emission Tomography
PF	Provider File
PHO	Physician-Hospital Organization
PHP	Prepaid Health Plan
PHS	Public Health Service, HHS
PLI	Professional Liability Insurance
POS	Point-of-Service
PPO	Preferred Provider Organization
PPRC	Physician Payment Review Commission
PPS	Prospective Payment System (Medicare)
PRO	Peer Review Organization (Medicare)
ProPAC	Prospective Payment Assessment Commission
PSU	Primary Sampling Unit
RBRVS	Resource-Based Relative Value Scale
RFP	Request for Proposals
RHC	Rural Health Center
RPCH	Rural Primary Care Hospital
RTI	Research Triangle Institute
RUC	RVS Update Committee
RVS	Relative Value Scale
RVU	Relative Value Unit
RWV	Relative Work Value
SAF	Standard Analytical Files
SMI	Supplementary Medical Insurance
SMS	Socioeconomic Monitoring System, AMA
SSI	Supplemental Security Income
TEP	Technology Evaluation Program, BCBS
TIE	Telemedicine Information Exchange
UCR	Usual, Customary, and Reasonable
UHC	University Hospital Consortium
UPIN	Unique Provider Identification Number (Medicare)
UR	Utilization Review
USPCC	U. S. Per Capita Cost (Medicare)
VPS	Volume Performance Standard (Medicare)

LEGISLATION (LISTED CHRONOLOGICALLY)

HMO Act	Health Maintenance Organization Act of 1973, P.L. 93-222, enacted December 29, 1973.
ERISA	Employee Retirement Income Security Act of 1974, P.L. 93-406, enacted September 2, 1974.
OBRA80	Omnibus Budget Reconciliation Act of 1980, P.L. 96-499, enacted December 5, 1980.
TEFRA	Tax Equity and Fiscal Responsibility Act of 1982, P.L. 97-248, enacted September 3, 1982.
DEFRA	Deficit Reduction Act of 1984, P.L. 98-369, enacted July 18, 1984.
COBRA	Consolidated Omnibus Budget Reconciliation Act of 1985, P.L. 99-272, enacted April 7, 1986.
OBRA86	Omnibus Budget Reconciliation Act of 1986, P.L. 99-509, enacted October 21, 1986.
OBRA87	Omnibus Budget Reconciliation Act of 1987, P.L. 100-203, enacted December 21, 1987.
MCCA	Medicare Catastrophic Coverage Act of 1988, P.L. 100-360, enacted July 1, 1988; repealed December 13, 1989.
OBRA89	Omnibus Budget Reconciliation Act of 1989, P.L. 101-239, enacted December 19, 1989.
OBRA90	Omnibus Budget Reconciliation Act of 1990, P.L. 101-508, enacted November 3, 1990.
OBRA93	Omnibus Budget Reconciliation Act of 1993, P.L. 103-66, enacted August 10, 1993.
Social Security Act Amendments of 1994	Social Security Act Amendments of 1994, P.L. 103-432, enacted October 31, 1994.

TERMS

Access: The ability to obtain needed medical care.

Adjusted Average Per Capita Cost (AAPCC): An estimate of the average cost incurred by Medicare for each beneficiary in the fee-for-service system, adjusted by county for geographic cost differences and differences in age, sex, disability status, Medicaid eligibility, and institutional status. See Medicare Risk Contract, U.S. Per Capita Cost.

Aid to Families with Dependent Children (AFDC) program: A program established by the Social Security Act of 1965, providing cash payments to needy children (and their caretakers) who lack support because at least one parent is deceased, disabled, continually absent from the home, or unemployed. Eligible families must meet income and resource criteria specified by the state.

Alliance: See Purchasing Group.

Allowed Charge: The amount Medicare approves for payment to a physician. Typically, Medicare pays 80 percent of the approved charge and the beneficiary pays the remaining 20 percent. Physicians may bill beneficiaries for an additional amount above the approved charge. See Balance Billing.

Alternative Dispute Resolution (ADR): Procedures used in a system outside of the courts to resolve legal claims.

Antitrust Laws: Laws that prohibit institutional mergers and acquisitions, exclusive contracts, joint ventures, and other business dealings in areas that may substantially reduce competition or have the tendency to produce a monopoly, and consequently have a detrimental effect on consumer welfare. See Market Power.

Assignment (Medicare): A beneficiary's directive to Medicare to pay his or her share of the allowed charge to the physician or supplier. Medicare will do this only if the physician accepts Medicare's allowed charge as payment in full (guarantees not to balance bill). Medicare provides other incentives to physicians who accept assignment for all patients under the Participating Physician and Supplier Program. See Balance Billing, Nonparticipating Physicians, Participating Physician, Participating Physician and Supplier Program.

Average Community Rate (ACR, Medicare): Estimated payment rates that health plans with Medicare risk contracts would have received for their Medicare enrollees if paid their private market premiums, adjusted for demographic differences. Health plans estimate their ACRs annually and adjust subsequent year supplemental benefits or premiums to return any excess Medicare revenue above the ACR to enrollees. See Adjusted Average Per Capita Cost, Medicare Risk Contract.

- Balance Billing:** In Medicare and private fee-for-service health insurance, the practice of billing patients in excess of the amount approved by the health plan. See Allowed Charge.
- Behavioral Offset:** See Volume Offset.
- Beneficiary:** A person who is eligible for or receiving benefits under an insurance policy or plan. The term is commonly applied to individuals receiving benefits under the Medicare or Medicaid programs or covered under a private health insurance plan.
- Benefit Package:** Services covered by a health insurance plan and the financial terms of such coverage, including cost sharing and limitations on amounts of services. See Cost Sharing, Standard Benefit Package.
- Bonus Payment:** An additional amount paid by Medicare for services provided by physicians in Health Professional Shortage Areas. Currently the bonus payment is 10 percent of Medicare's 80 percent share of allowed charges. See Allowed Charge, Health Professional Shortage Area.
- Budget Neutrality:** For the Medicare program, adjustment of payment rates when policies change so that total spending under the new rules is expected to be the same as it would have been under the previous payment rules.
- Capitation:** A health insurance payment mechanism in which a fixed amount is paid per person to cover services; a fixed, per capita payment.
- Carrier (Medicare):** A private contractor that administers claims processing and payment for Part B services. See Supplementary Medical Insurance.
- Case Management:** Monitoring and coordinating the delivery of health services for individual patients to enhance care and manage costs; often used for patients with specific diagnoses or who require high-cost or extensive health care services.
- Certificate of Merit:** A requirement that an independent medical expert review the medical record and certify that a claim has merit before a formal medical liability lawsuit can be filed.
- Coding:** A mechanism for identifying and defining physicians' services. See Current Procedural Terminology.
- Coinsurance:** A type of cost sharing where the insured party and insurer share payment of the approved charge for covered services in a specified ratio after payment of the deductible. Under Medicare Part B, the beneficiary pays coinsurance of 20 percent of allowed charges. See Allowed Charge, Copayment, Cost Sharing, Deductible.

- Collateral Source Rule:** A legal rule that prohibits consideration of other payments, such as those from health or disability insurance, received by a claimant for losses because of an injury.
- Community Rating:** A method for establishing health insurance premiums whereby an insurer's premium is the same for all individuals in a premium class within a specific geographic area. See Premium, Premium Class, Rating Restriction.
- Competitive Medical Plan (CMP):** A health plan that is eligible for a Medicare risk contract, although it is not a federally qualified HMO, because it meets specified requirements for service provision, payment, and financial solvency. See Federally Qualified HMO.
- Competitive Pricing:** Pricing methods that use market information to establish payment rates that reflect the costs of an efficient HMO or health care provider. One well-known method is competitive bidding, which elicits information on costs through a bidding process.
- Conversion Factor:** The multiplicative factor used to translate relative value units into dollar amounts for physician payments under a fee schedule.
- Conversion Factor Update:** Annual percentage change to the Medicare Fee Schedule conversion factor, which is either established by the Congress or set by a formula to reflect whether actual expenditure growth from two years earlier fell below or above the target rate. See Conversion Factor, Cumulative Approach, Performance Standard, Volume Performance Standard System.
- Copayment:** A type of cost sharing where the insured party is responsible for paying a fixed dollar amount per service. Sometimes used more generally as a synonym for cost sharing. See Coinsurance, Cost Sharing, Deductible.
- Cost Sharing:** A health insurance policy provision that requires the insured party to pay a portion of the costs of covered services. Deductibles, coinsurance, copayments, and balance bills are types of cost sharing. See Balance Billing, Coinsurance, Copayment, Deductible.
- Coverage Decision:** A decision by a health plan whether to pay for or provide a medical service or technology for particular clinical indications.
- Cumulative Approach:** An alternative method for setting conversion factor updates under the Volume Performance Standard system, which not only brings actual spending in line with targeted spending, but also recovers any surpluses or shortfalls in spending from the two years before updates are made. See Conversion Factor, Conversion Factor Update, Volume Performance Standard System.
- Current Procedural Terminology (CPT):** The coding system for physicians' services developed by the CPT Editorial Panel of the American Medical Association; basis of the Medicare HCPCS coding system for physicians' services. See Coding, HCFA Common Procedure Coding System.

Customary Charge: One of the screens previously used to determine a physician's payment for a service under Medicare's customary, prevailing, and reasonable payment system. Customary charges were calculated as the physician's median charge for a given service over a prior 12-month period. See Customary, Prevailing, and Reasonable.

Customary, Prevailing, and Reasonable (CPR): The method of paying physicians under Medicare from 1965 until implementation of the Medicare Fee Schedule in January 1992. Payment for a service was limited to the lowest of (1) the physician's billed charge for the service, (2) the physician's customary charge for the service, or (3) the prevailing charge for that service in the community. Similar to the usual, customary, and reasonable system used by private insurers. See Customary Charge, Medicare Fee Schedule, Prevailing Charge.

Deductible: A type of cost sharing where the insured party pays a specified amount of approved charges for covered medical services before the insurer will assume liability for all or part of the remaining covered services. See Coinsurance, Copayment, Cost Sharing.

Diagnosis-Related Groups (DRGs): A system of classifying patients on the basis of diagnoses for purposes of payment to hospitals. See Prospective Payment System.

Dual Eligible: A Medicare beneficiary who also receives the full range of Medicaid benefits offered in his or her state.

Effectiveness: The net health benefits provided by a medical service or technology for typical patients in community practice settings.

Efficacy: The net health benefits achievable under ideal conditions for carefully selected patients.

Enterprise Liability: The assumption of liability by a health care organization for all negligent injuries to patients under its care, thereby relieving individual practitioners of all personal liability for such injuries.

Evaluation and Management (EM) Service: A nontechnical service, such as a visit or consultation, provided by most physicians for the purpose of diagnosing and treating diseases and counseling patients.

Exclusive Provider Organization (EPO): A type of preferred provider organization in which the patient is required to use the provider network, and no coverage is available for out-of-network services. See Preferred Provider Organization.

Experience Rating: A system used by insurers to set premium levels based on the insured's past loss experience. For example, rating may be based on service utilization for health insurance or on liability experience for professional liability insurance. See Community Rating.

Federally Qualified HMO: An HMO that has satisfied certain federal qualifications pertaining to organizational structure, provider contracts, health service delivery information, utilization review and quality assurance, grievance procedures, financial status, and marketing information, as specified in Title XIII of the Public Health Service Act. See Health Maintenance Organization.

Fee for Service: A method of paying health care providers for individual medical services rendered, as opposed to paying them salaries or capitated payments. See Capitation.

Fee Schedule: A list of predetermined payment rates for medical services. See Medicare Fee Schedule.

Fee Schedule Payment Areas: A geographic area within which payment for a given service under the Medicare Fee Schedule does not vary. See Geographic Adjustment Factor.

Five-Year Refinement (Medicare): A review of the accuracy of Medicare's entire relative value scale that the Health Care Financing Administration is required to conduct every five years.

Gaming: Gaining advantage by using improper means to evade the letter or intent of a rule or system.

Generalists: Physicians who are distinguished by their training as not limiting their practice by health condition or organ system, who provide comprehensive and continuous services, and who make decisions about treatment for patients presenting with undifferentiated symptoms. Typically include family practitioners, general internists, and general pediatricians.

Geographic Adjustment Factor (GAF): The GAF for each service in a particular payment area is the average of the area's three GPCIs weighted by the share of the service's total RVUs accounted for by the work, practice expense, and malpractice expense components of the Medicare Fee Schedule. See Geographic Practice Cost Index, Relative Value Units.

Geographic Adjustment Method (Medicare): The method used to convert Medicare U.S. average fee-for-service per capita costs (USPCCs) to the local adjusted average per capita costs (AAPCCs) used to pay Medicare risk contracting HMOs. See Adjusted Average Per Capita Cost, Medicare Risk Contract, U.S. Per Capita Cost.

Geographic Practice Cost Index (GPCI): An index summarizing the prices of resources required to provide physicians' services in payment areas relative to national average prices. There is a GPCI for each component of the Medicare Fee Schedule: physician work, practice expense, and malpractice expense. The indexes are used to adjust relative value units to determine the correct payment in each fee schedule payment area. See Fee Schedule Payment Area, Medicare Fee Schedule.

Global Service: A package of clinically related services treated as a unit for purposes of billing, coding, or payment.

Global Surgery Policy: The payment policy in the Medicare Fee Schedule that specifies the surgical procedure and the related services and visits that are included in a global surgical fee. Separate payment is permitted for the initial evaluation, services for unrelated problems, and return trips to the operating room because of complications. See Surgical Global Service.

Graduate Medical Education (GME): The period of medical training that follows graduation from medical school; commonly referred to as internship, residency, and fellowship training. See Undergraduate Medical Education.

Gross Domestic Product (GDP): The total current market value of all goods and services produced domestically during a given period; differs from the gross national product by excluding net income that residents earn abroad.

Group-Model HMO: An HMO that pays a medical group a negotiated, per capita rate, which the group distributes among its physicians, often under a salaried arrangement. See Health Maintenance Organization, Independent Practice Association, Network-Model HMO, Staff-Model HMO.

Group Practice Without Walls (GPWW): An organization of physicians in physically independent facilities who form a single legal entity to centralize the business aspects of their organization. In the typical case, the GPWW is organized by a strong, centralized clinic that adds individual physicians or small groups in satellite offices.

Guaranteed Issue: The requirement that each insurer and health plan accept everyone who applies for coverage and guarantee the renewal of that coverage as long as the applicant pays the premium.

HCFA Common Procedure Coding System (HCPCS): A Medicare coding system based on CPT, but supplemented with additional codes. See Coding, Current Procedural Terminology.

Health Care Prepayment Plan (HCPP): A health plan with a Medicare cost contract to provide only Medicare Part B benefits. Some administrative requirements for these plans are less stringent than those of risk contracts or other cost contracts. See Medicare Cost Contract, Medicare Risk Contract.

Health Maintenance Organization (HMO): A type of managed-care plan that acts as both insurer and provider of a comprehensive set of health care services to an enrolled population. Benefits are financed through capitation with limited copayments, and services are provided through a system of affiliated providers. See Group-Model HMO, Independent Practice Association HMO, Managed Care, Network-Model HMO, Staff-Model HMO.

Health Plan: An organization that acts as insurer for an enrolled population; may be structured as a fee-for-service or managed-care plan. See Fee for Service, Managed Care.

Health Professional Shortage Area (HPSA): An urban or rural geographic area, a population group, or a public or nonprofit private medical facility that the Secretary of Health and Human Services determines to be served by too few health professionals. Physicians who provide services in HPSAs qualify for the Medicare bonus payment. Replaces Health Manpower Shortage Area. See Bonus Payment.

Hospital Insurance (HI): The Medicare program that covers the cost of hospital and related post-hospital services. Eligibility is normally based on prior payment of payroll taxes. Beneficiaries are responsible for an initial deductible per spell of illness and copayments for some services. Also called Part A coverage or benefits.

Independent Practice Association (IPA) HMO: An HMO that contracts with individual physicians or small physician groups to provide services to HMO enrollees at a negotiated per capita or fee-for-service rate. Physicians maintain their own offices and can contract with other HMOs and see other fee-for-service patients. See Group-Model HMO, Health Maintenance Organization, Network-Model HMO, Staff-Model HMO.

Intensity of Service: See Volume and Intensity of Service.

Joint and Several Liability: A legal rule that holds any defendant responsible for up to the full award in a medical liability case if any other defendants cannot pay their shares apportioned by fault.

Limiting Charge: The maximum amount that a nonparticipating physician is permitted to charge a Medicare beneficiary for a service; a limit on balance billing. Starting in 1993 the limiting charge is 115 percent of the Medicare allowed charge. See Allowed Charge, Balance Billing, Nonparticipating Physician.

Locality (Medicare): See Fee Schedule Payment Area.

Malpractice Expense: The cost of professional liability insurance incurred by physicians. A component of the Medicare relative value scale. See Relative Value Scale.

Managed Care: Any system of health service payment or delivery arrangements where the health plan attempts to control or coordinate use of health services by its enrolled members in order to contain health expenditures, improve quality, or both. Arrangements often involve a defined delivery system of providers with some form of contractual arrangement with the plan. See Health Maintenance Organization, Independent Practice Association, Preferred Provider Organization.

Managed Competition: A system in which health plans compete to provide health insurance coverage for enrollees. Typically, enrollees would sign up with some type of purchasing group and would be offered a choice of health plans during an open season. See Health Plan, Purchasing Group.

Management Services Organization (MSO): An organization that provides a wide variety of administrative and practice management services to physicians. Some MSOs may limit their operations to selling physicians various administrative support services, such as billing, group purchasing, and office administration. Other MSOs purchase the assets of physician practices outright, install office managers and other personnel, and hire physicians through professional services contracts.

Market Power: The ability to control prices, restrict output, or otherwise exclude competition.

Medicaid: A program of federal matching grants to the states to provide health insurance for categories of the poor and medically indigent. States determine eligibility, payments, and benefits consistent with federal standards.

Medical Underwriting: See Underwriting.

Medicare Adjuster: A proposed adjustment to a service's relative work value to reflect accurately the difference in work involved in treating elderly patients.

Medicare Cost Contract: A contract between Medicare and a health plan under which the plan is paid on the basis of reasonable costs to provide some or all of Medicare-covered services for enrollees. See Health Care Prepayment Plan, Medicare Risk Contract.

Medicare Economic Index (MEI): An index that tracks changes over time in physician practice costs. From 1975 through 1991, increases in prevailing charge screens were limited to increases in the MEI. It is the starting point for updates under the VPS. See Prevailing Charge.

Medicare Fee Schedule: The resource-based fee schedule currently used by Medicare to pay for physicians' services. Replaced the CPR payment method. See Customary, Prevailing and Reasonable; Resource-Based Relative Value Scale; Conversion Factor; Geographic Adjustment Factor.

Medicare Risk Contract: A contract between Medicare and a health plan under which the plan receives monthly capitated payments to provide some or all of Medicare-covered services for enrollees, and thereby assumes insurance risk for those enrollees. A plan is eligible for a risk contract if it is a federally qualified HMO or a competitive medical plan. See Adjusted Average Per Capita Cost, Competitive Medical Plan, Medicare Cost Contract.

Medigap Insurance: Private health insurance policies designed to supplement Medicare coverage. Benefits may include payment of Medicare deductibles, coinsurance, and balance bills, and payment for services not covered by Medicare.

Modifier: An additional coding element that permits payment to differ for a subset of services billed under a code.

Multiple-Employer Welfare Arrangement (MEWA): A specific type of purchasing group, defined in the Employee Retirement Income Security Act of 1974, that offers health benefits to employees of two or more employers. See Purchasing Group.

National Claims History (NCH) System: A HCFA data reporting system that combines both Part A and Part B claims in a common file. The NCH system became fully operational in 1991.

National Practitioner Data Bank: A computerized data bank maintained by the federal government that contains information on physicians against whom liability claims have been paid or certain disciplinary actions have been taken.

Network-Model HMO: An HMO that contracts with several different medical groups, often at a capitated rate. Groups may use different methods to pay their physicians. See Group-Model HMO, Health Maintenance Organization, Independent Practice Association, Staff-Model HMO.

No-Fault: A legal standard that compensates claimants for injuries due to medical care whether or not the care they received was substandard.

Nonparticipating Physician: A physician who does not sign a participation agreement and, therefore, is not obligated to accept assignment on all Medicare claims. See Assignment, Participating Physician, Participating Physician and Supplier Program.

Nonphysician Practitioner (NPP): A health care professional who is not a physician. Examples include advanced practice nurses and physician assistants.

Outcome: The consequence of a medical intervention on a patient.

Outcomes and Effectiveness Research: Medical or health services research that attempts to identify and understand the clinical outcomes (including mortality, morbidity, and functional status) of the delivery of health care.

Overvalued Procedure (Medicare): A procedure for which the payment rate was reduced in legislation because the Congress found it to be overvalued under the previous Medicare payment system.

Paid Amount: The portion of a submitted charge that is actually paid, by both third-party payers and the insured, including copayments and balance bills. For Medicare this amount may be less than the allowed charge if the submitted charge is less, or it may be more because of balance billing. See Allowed Charge, Balance Billing, Payment Rate, Submitted Charge.

Part A (Medicare): See Hospital Insurance.

Part B (Medicare): See Supplementary Medical Insurance.

Partial Capitation: An insurance arrangement where the payment made to a health plan is a combination of a capitated premium and payment based on actual use of services; the proportions specified for these components determine the insurance risk faced by the plan.

Participating Physician: A physician who signs a participation agreement, agreeing to accept assignment on all Medicare claims for one year. See Assignment.

Participating Physician and Supplier Program (PAR): A program that provides financial and administrative incentives for physicians and suppliers to agree in advance to accept assignment on all Medicare claims for a one-year period. See Assignment.

Payment Rate: The total amount paid for each unit of service rendered by a health care provider, including both the amount covered by the insurer and the consumer's cost sharing. For Medicare payments to physicians this is the same as the allowed charge. See Allowed Charge.

Peer Review Organization (PRO): An organization contracting with HCFA to review the medical necessity and quality of care provided to Medicare beneficiaries; formally called Utilization and Quality Control Peer Review Organization.

Performance Measure: A specific measure of how well a health plan does in providing health services to its enrolled population. Can be used as a measure of quality. Examples include percentage of diabetics receiving annual referrals for eye care, screening mammography rate, and percentage of enrollees indicating satisfaction with care.

Performance Standard: The target rate of expenditure growth set by the Volume Performance Standard system. See Volume Performance Standard System.

Periodic Review of Relative Values: The recalibration of Medicare's relative value scale to account for changes that occur over time. HCFA is required to conduct a periodic review at least every five years. See Five-Year Refinement.

Physician-Hospital Organization (PHO): An organization that contracts with payers on behalf of one or more hospitals and affiliated physicians. The PHO may also undertake utilization review, credentialing, and quality assurance. Physicians retain ownership of their own practices, maintain significant business outside the PHO, and typically continue in their traditional style of practice.

Physician Work: A measure of the physician's time, physical effort and skill, mental effort and judgment, and stress from iatrogenic risk associated with providing a medical service. A component of the Medicare relative value scale.

Point-of-Service Plan: A managed-care plan that combines features of both prepaid and fee-for-service insurance. Health plan enrollees decide whether to use network or nonnetwork

providers at the time care is needed and usually are charged sizable copayments for selecting the latter. See Health Plan, Health Maintenance Organization, Preferred Provider Organization.

Portability: The requirement that insurers waive any preexisting condition exclusion for someone who was previously covered through other insurance as recently as 30 to 90 days earlier. See Preexisting Condition Exclusion.

Practice Expense: The cost of nonphysician resources incurred by the physician to provide services. Examples are salaries and fringe benefits received by employees of the physician, and the expenses associated with the purchase and use of medical equipment and supplies in the physician's office. A component of the Medicare relative value scale.

Practice Guideline: An explicit statement of what is known and believed about the benefits, risks, and costs of particular courses of medical action. Intended to assist decisions by practitioners, patients, and others about appropriate health care for specific clinical conditions.

Preexisting Condition Exclusion: A practice of some health insurers to deny coverage to individuals for a certain period, for example, six months, for health conditions that already exist when coverage is initiated. See Portability.

Preferred Provider Organization (PPO): A managed-care plan that contracts with networks or panels of providers to furnish services and be paid on a negotiated fee schedule. Enrollees are offered a financial incentive to use providers on the preferred list, but may use nonnetwork providers as well. See Managed Care.

Premium: An amount paid periodically to purchase health insurance benefits.

Premium Class: An accepted category of enrollees used for establishing insurance premiums. See Community Rating, Experience Rating, Premium.

Prevailing Charge: One of the screens that determined a physician's payment for a service under the Medicare CPR payment system. In Medicare, it was the 75th percentile of customary charges, with annual updates limited by the MEI. See Customary Charge; Customary, Prevailing, and Reasonable; Medicare Fee Schedule; Medicare Economic Index.

Professional Component: The part of a relative value or fee that represents the cost of a physician's interpretation of a diagnostic test or treatment planning for a therapeutic procedure. See Technical Component.

Professional Liability Insurance (PLI): The insurance physicians purchase to help protect themselves from the financial risks associated with medical liability claims.

Profiling: Expressing a pattern of practice as a rate— some measure of utilization (costs or services) or outcome (functional status, morbidity, or mortality) aggregated over time for a defined population of patients— to compare with other practice patterns. May be done for physician practices, health plans, or geographic areas.

Prospective Payment System (PPS): The Medicare system used to pay hospitals for inpatient hospital services; based on the DRG classification system. See Diagnosis-Related Groups.

Purchasing Group: A health insurance purchasing entity that enrolls individuals, collects premiums, purchases enrollees' insurance from participating health plans, and enforces the rules that manage health plan competition. Sometimes called purchasing cooperative, purchasing pool, or alliance. May be created as a private or public entity.

Quality Assurance: A formal, systematic process to improve quality of care that includes monitoring quality, identifying inadequacies in delivery of care, and correcting those inadequacies.

Rating Restriction: A method for establishing health insurance premiums whereby an insurer's premium varies by no more than a fixed amount from other premiums for individuals in the same premium class within a specific geographic area. See Community Rating, Premium.

Refinement: The correction of relative work values in Medicare's relative value scale that were initially set incorrectly.

Reinsurance: An insurance arrangement where an insurer pays a premium into a pool, and any claims paid by the insurer above a predefined dollar level are covered in whole or in part by the pool.

Relative Value: A value that reflects a comparison with a standard. See Relative Value Scale.

Relative Value Scale (RVS): An index that assigns weights to each medical service; the weights represent the relative amount to be paid for each service. The RVS used in the development of the Medicare Fee Schedule consists of three components: physician work, practice expense, and malpractice expense. See Malpractice Expense, Medicare Fee Schedule, Physician Work, Practice Expense, Resource-Based Relative Value Scale.

Relative Value Unit (RVU): The unit of measure for a relative value scale. RVUs must be multiplied by a dollar conversion factor to become payment amounts. See Conversion Factor, Relative Value, Relative Value Scale.

Relative Work Value (RWV): An assigned value that reflects the average work of a physician of average efficiency relative to a standard. See Relative Value Scale.

Resource-Based Relative Value Scale (RBRVS): A relative value scale that is based on the resources involved in providing a service. See Relative Value Scale.

- Revenue Share:** The proportion of a practice's total revenue devoted to a particular type of expense. For example, the practice expense revenue share is that proportion of revenue used to pay for practice expense.
- Risk Adjuster:** A risk measure used to adjust payments made to a health plan on behalf of a group of enrollees in order to compensate for expenses that are expected to be lower or higher than average, based on the risk status of the enrollees.
- Risk Selection:** Any situation where health plans differ in the health risk associated with their enrollees as a result of enrollment choices made by health plans or enrollees, that is, where one group's or health plan's expected costs differ from those of another group or health plan.
- Self-Insured Health Plan:** Employer-provided health insurance in which the employer, not an insurer, is at risk for its employees' medical expenses.
- Severity Modifier:** An adjustment that reflects the effect of patient factors, such as severity of illness, comorbidity, or risk of complications, on the relative work required to deliver a service.
- Site-of-Service Differential:** The difference in the amount paid when the same service is performed in different practice settings, for example, an outpatient visit in a physician's office or a hospital clinic.
- Specialty Differential:** A difference in the amount paid for the same service when performed by physicians in different specialties. Eliminated from Medicare effective 1992.
- Staff-Model HMO:** An HMO in which physicians practice solely as employees of the HMO and usually are paid a salary. See Group-Model HMO, Health Maintenance Organization.
- Standard Benefit Package:** A defined set of health insurance benefits that all insurers are required to offer. See Benefit Package.
- State Practice Acts:** State licensing laws for physicians, nurses, and other health care professionals that define each recognized health care profession and its legal scope of practice.
- Submitted Charge:** The charge submitted by a provider to the patient or a payer. See Paid Amounts.
- Supplemental Security Income (SSI):** A federal income support program for low-income disabled, aged, and blind persons. Eligibility for the monthly cash payments is based on the individual's current status without regard to previous work or contributions to a trust fund.
- Supplementary Medical Insurance (SMI):** The Medicare program that covers the costs of physicians' services, outpatient laboratory and X-ray tests, durable medical equipment,

outpatient hospital care, and certain other services. This voluntary program requires payment of a monthly premium, which covers about 25 percent of program costs. Beneficiaries are responsible for a deductible and coinsurance payments for most covered services. Also called Part B coverage or benefits.

Supplier: A provider of health care services, other than a practitioner, that is permitted to bill under Medicare Part B. Suppliers include independent laboratories, durable medical equipment providers, ambulance services, orthotists, prosthetists, and portable X-ray providers.

Surgical Global Service: A package of services that are clinically related to either major or minor surgical procedures. See Global Surgery Policy.

Technical Component: The part of a relative value or fee for a diagnostic test or therapeutic procedure that represents the costs of performing the service excluding the physician's work. See Professional Component.

Technology Assessment: In health policy, a synthesis of information on the safety, effectiveness, and cost of a service or technology to predict how providing it would affect patients and the health care system.

Tort Reform: Changes in the legal rules governing medical liability lawsuits.

Undergraduate Medical Education: The medical training provided to students in medical school. See Graduate Medical Education.

Underwriting: The process by which an insurer determines whether or not and on what basis it will accept an application for insurance. Some insurers use medical underwriting to exclude individuals, groups, or coverage for certain health conditions that are expected to incur high costs.

Unique Provider Identification Number (UPIN): A unique number assigned to each physician or other practitioner billing the Medicare program.

Upcode: To bill for a service using a code with a higher relative value than the one that is most appropriate for the service rendered.

Update for New and Revised Codes: Yearly process of determining the relative values of new and revised codes for Medicare's relative value scale.

U.S. Per Capita Cost (USPCC): The national average fee-for-service cost per Medicare beneficiary, calculated annually by the HCFA Office of the Actuary. See Adjusted Average Per Capita Cost, Medicare Risk Contract.

Usual, Customary, and Reasonable (UCR): A method used by private insurers for paying physicians based on charges commonly used by physicians in a local community. Sometimes called customary, prevailing, and reasonable. See Customary, Prevailing, and Reasonable.

Utilization Review (UR): The review of services delivered by a health care provider or supplier to determine whether those services were medically necessary; may be performed on a concurrent or retrospective basis.

Visit Crosswalk: The assumed relationship between discontinued CPT visit codes and those new codes that replace them.

Volume and Intensity of Services: The quantity of health care services per enrollee, taking into account both the number and the complexity of the services provided.

Volume (Behavioral) Offset: The change in the number and mix of services that is projected to occur in response to a change in fees. A 50 percent volume offset means that half the savings from fee reductions will be offset by increased volume and intensity of services.

Volume Performance Standard (VPS) System: The VPS system provides a mechanism to adjust fee updates for the Medicare Fee Schedule based on how annual increases in actual expenditures compare with previously determined performance standard rates of increase.

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